DENO-00384

DENON

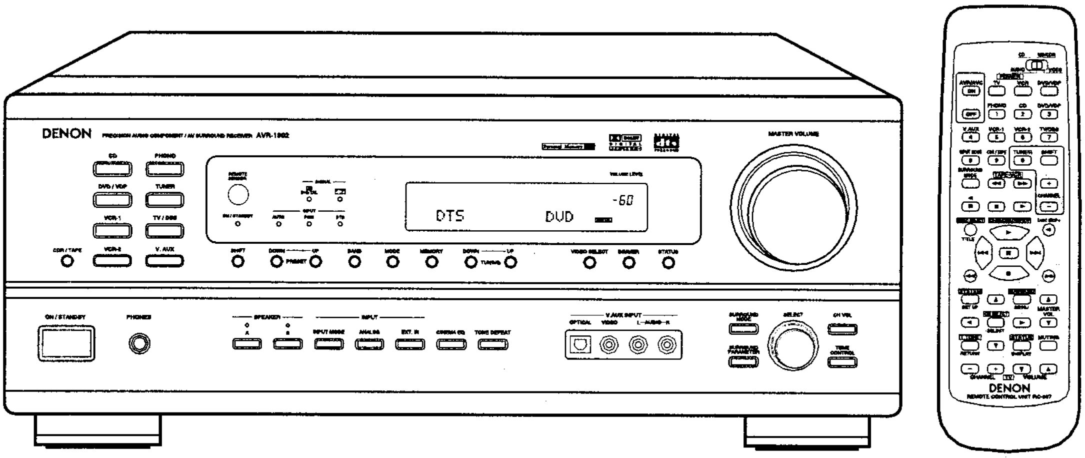
For U.S.A., Canada, Europe, Asia, China, Hong Kong & Taiwan R.O.C. model

Hi-Fi Component

SERVICE MANUAL

MODEL AVR-1802/882

AV SURROUND RECEIVER


DENON
AVR-1802
MASTER VOLUME
DTS
DVD
-60
DENON

● **Some illustrations using in this service manual are slightly different from the actual set.**

NIPPON COLUMBIA CO., LTD.

14-14, AKASAKA 4-CHOME, MINATO-KU, TOKYO 107-8011 JAPAN
Telephone: 03 (3584) 8111

X0117 1174 NC 0109

SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

SPECIFICATIONS

■ Audio section

Power amplifier

Rated output:	Front:	80W + 80W	(8Ω/ohms, 20Hz ~20kHz with 0.08% T.H.D)
		115W + 115W	(6Ω/ohms, 1kHz with 0.7% T.H.D) (U.S.A., Canada & Europe Models)
		130W + 130W	(6Ω/ohms, EIAJ) (Asia Model)
	Center:	80W	(8Ω/ohms, 20Hz ~20kHz with 0.08% T.H.D)
		115W	(6Ω/ohms, 1kHz with 0.7% T.H.D) (U.S.A., Canada & Europe Models)
		130W	(6Ω/ohms, EIAJ) (Asia Model)
	Surround:	80W + 80W	(8Ω/ohms, 20Hz ~20kHz with 0.08% T.H.D)
		115W + 115W	(6Ω/ohms, 1kHz with 0.7% T.H.D) (U.S.A., Canada & Europe Models)
		130W + 130W	(6Ω/ohms, EIAJ) (Asia Model)
Output terminals:	Front:	A or B 6 to 16Ω/ohms	
		A + B 12 to 16Ω/ohms	
	Center/Surround:	6 to 16Ω/ohms	

Analog

LINE input - PRE OUT	
Input Sensitivity/input impedance:	200mV/47kΩ/kohms
Frequency response:	10Hz~100kHz: + 1, -3dB (TONE DEFEAT ON)
S/N ratio:	100dB (IHF-A weighted) (TONE DEFEAT ON)

■ Video section

Standard video jacks

Input/output level and impedance:	1Vp-p, 75Ω/ohms
Frequency response:	5Hz~10MHz — +1, -3dB

S-video jacks

Input/output level and impedance:	Y (brightness) signal — 1Vp-p, 75Ω/ohms C (color) signal — 0.286Vp-p, 75Ω/ohms
Frequency response:	5Hz~10MHz — +1, -3dB

■ Tuner section

Receiving range:	**[FM]** (note: µV at 75Ω/ohms, 0dBf =1x10^{-15}W)		**[AM]**
U.S.A. & Canada Models	87.50MHz~107.90MHz		520kHz~1710kHz
Europe & Asia (for China) Models	87.50MHz~108.00MHz		522kHz~1611kHz
Asia (for Multiple voltage) Models	87.50MHz~107.90MHz (0.2MHz steps) 87.50MHz~108.00MHz (0.05MHz steps)		520kHz~1710kHz (10kHz steps) 522kHz~1611kHz (9kHz steps)
Usable sensitivity:	1.0 µV (11.2dBf)		18 µV
50dB quieting sensitivity:	MONO	1.6 µV (15.3dBf)	
	STEREO	23 µV (38.5dBf)	
S/N ratio:	MONO	80dB (IHF-A weighted)	
	STEREO	75dB (IHF-A weighted)	
Total harmonic distortion:	MONO	0.15% (1kHz)	
	STEREO	0.3% (1kHz)	

■ General

Power supply:	
U.S.A., Canada Models	AC120V, 60Hz
Europe Model	AC230V, 50Hz
Asia (for Multiple voltage) Model	AC115/230V, 50/60Hz
Asia (for China) Model	AC220V, 50Hz
Power consumption:	4.5A (U.S.A. & Canada model), 230W (Europe & Asia model)
Maximum external dimensions:	434 (W) x 171 (H) x 417 (D)mm (17-3/32" x 6-47/64" x 16-7/16")
Mass:	10.9kg (24lbs 0.5 oz)

■ Remote control unit (RC-897)

Batteries:	R6P/AA Type(two batteries)
External dimensions:	54 (W) x 172.5 (H) x 29 (D)mm (2-1/8" x 6-51/64" x 1-9/64")
Mass:	120g (Approx. 4.2 oz) (including batteries)

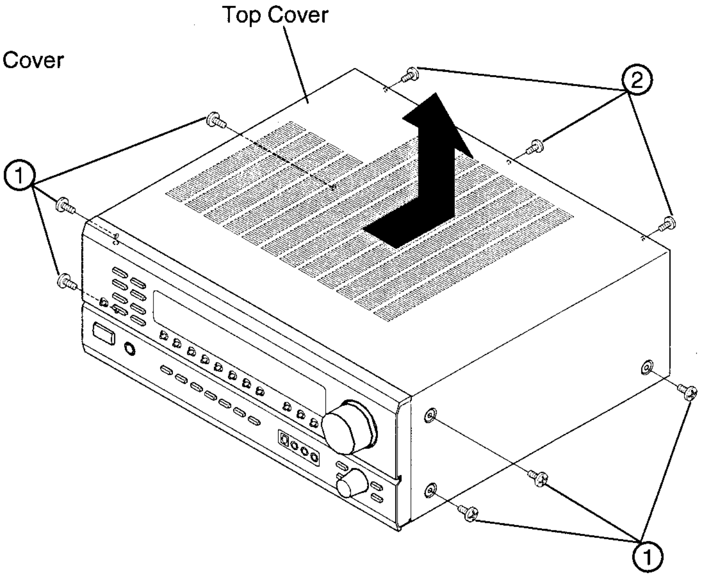
* For purposes of improvement, specifications and design are subject to change without notice.

DISASSEMBLY

(To reassemble reverse disassenbly)

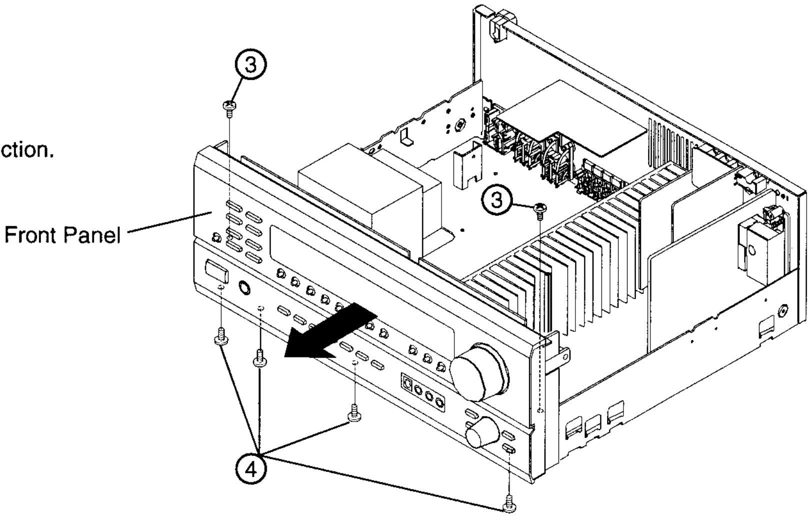
Top Cover

Remove 6 screws ① and 3 screws ②, detach the Top Cover in the arrow direction.


Top Cover
②
①
①

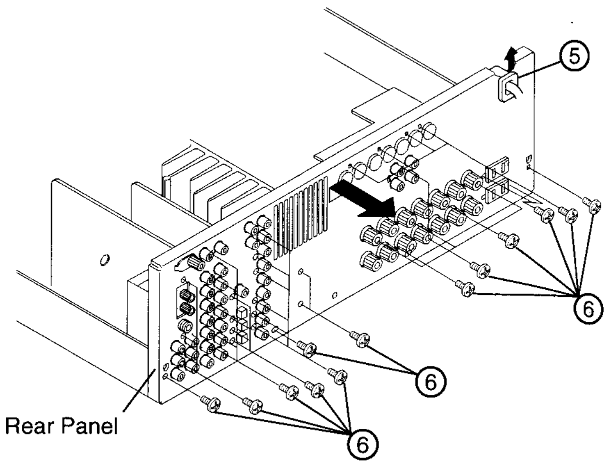
Front Panel

1. Remove 2 screws ③.
2. Remove 4 screws ④.
3. Detach the Front Panel in the arrow direction.


③
Front Panel
③
④

Rear Panel

1. Remove cord bushing ⑤ from the Rear Panel.
2. Remove 36 screw ⑥.
3. Detach the Rear Panel in the arrow direction.

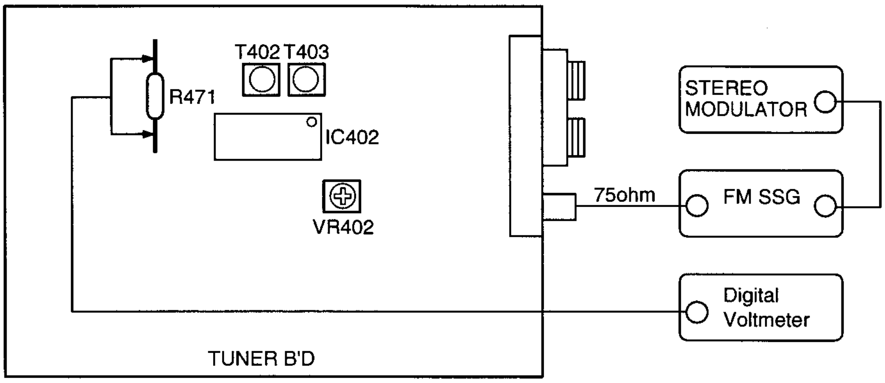

⑤
⑥
⑥
Rear Panel
⑥

ADJUSTMENT

Tuner Section

CONNECTION DIAGRAM OF MEASURING INSTRUMENTS

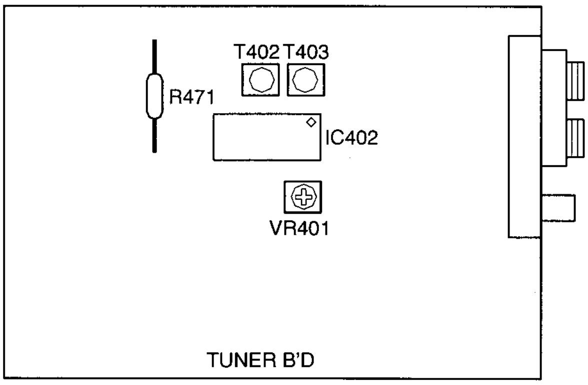
● **FM**


T402
T403
R471
IC402
VR402
TUNER B'D
75ohm
STEREO MODULATOR
FM SSG
Digital Voltmeter

FM ALIGNMENT

Step	Alignment Item	Tuning Frequency Setting	Input					Output		Adjustment	
			Type	Frequency	Input Level	Modulation	Coupling	Type	Connect to	Points	Adjust to
1	Center Adjustment	98.1MHz (98.0MHz)	FM SSG	98.1MHz	60dBμ	—	Antenna Terminal	Digital Voltmeter	R471	T402	± 50mV
2	Distortion	98.1MHz (98.0MHz)	FM SSG	98.1MHz	60dBμ	Mono 1kHz 100%	Antenna Terminal	Distortion Meter	Output Terminal (L)	T403	Minimum Distortion
3	Repeat Steps 1 and 2										
4	Signal Level	98.1MHz (98.0MHz)	FM SSG	98.1MHz	20dBμ	OFF	Antenna Terminal	Light "TUNED" on FL Display		VR402	20^{+14}_{-10}dB

● **AM**


T402
T403
R471
IC402
VR401
TUNER B'D

AM ALIGNMENT

Step	Alignment Item	Frequency	Input	Output		Adjustment		Remarks
				Type	Connect to	Points	Adjust to	
1	Signal Level	999 (1000) kHz	AM SSG	—	—	VR401	Light "TUNED" on FL Display	SSG OUTPUT 74dBμ (EMF)

Audio Section

Idling Current

Required measurement equipment : DC Voltmeter

Preparation

(1) Avoid direct blow from an air conditioner or an electric fan, and adjust the unit at normal room tempereture 15 °C ~ 30 °C (59 °F ~ 86 °F).

(2) Presetting
- POWER (Power sourse switch) → OFF
- SPEAKER (Speaker terminal) → No load (Do not connect speaker, dummy resistor, etc.)

Adjustment

(1) Remove top cover and set VR101, VR102, VR103, VR104, VR105 on Amp. Unit at full counterclockwise (↺) position.

(2) Connect DC Voltmeter to test points (FRONT-Lch: TP104, FRONT-Rch: TP105, CENTER ch: TP103, SURROUND-Lch: TP101, SURROUND-Rch: TP102).

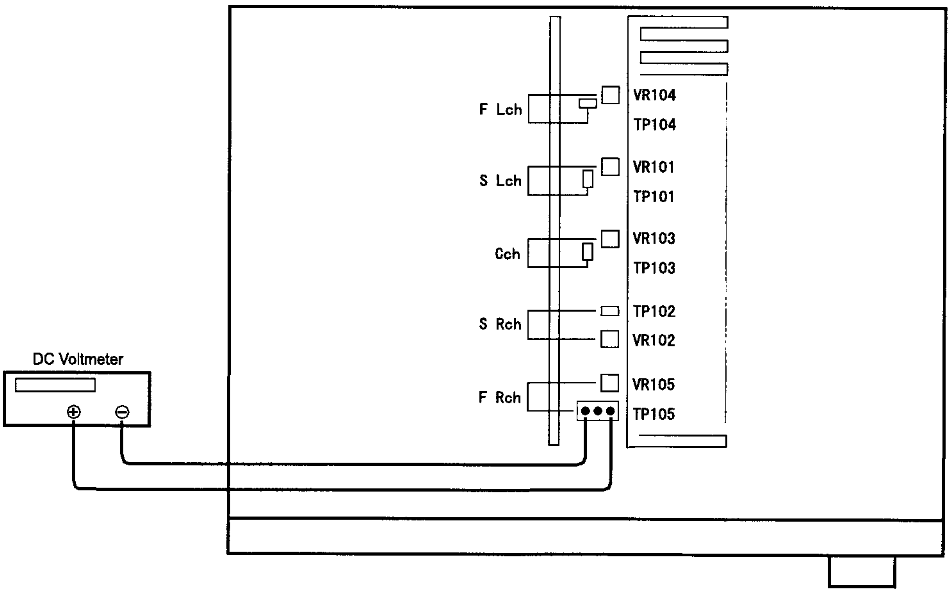
(3) Connect power cord to AC Line, and turn power switch "ON".

(4) Presetting.
MASTER VOLUME : "---" counterclockwise (↺ min.)
MODE : 5CH STEREO
FUNCTION : CD

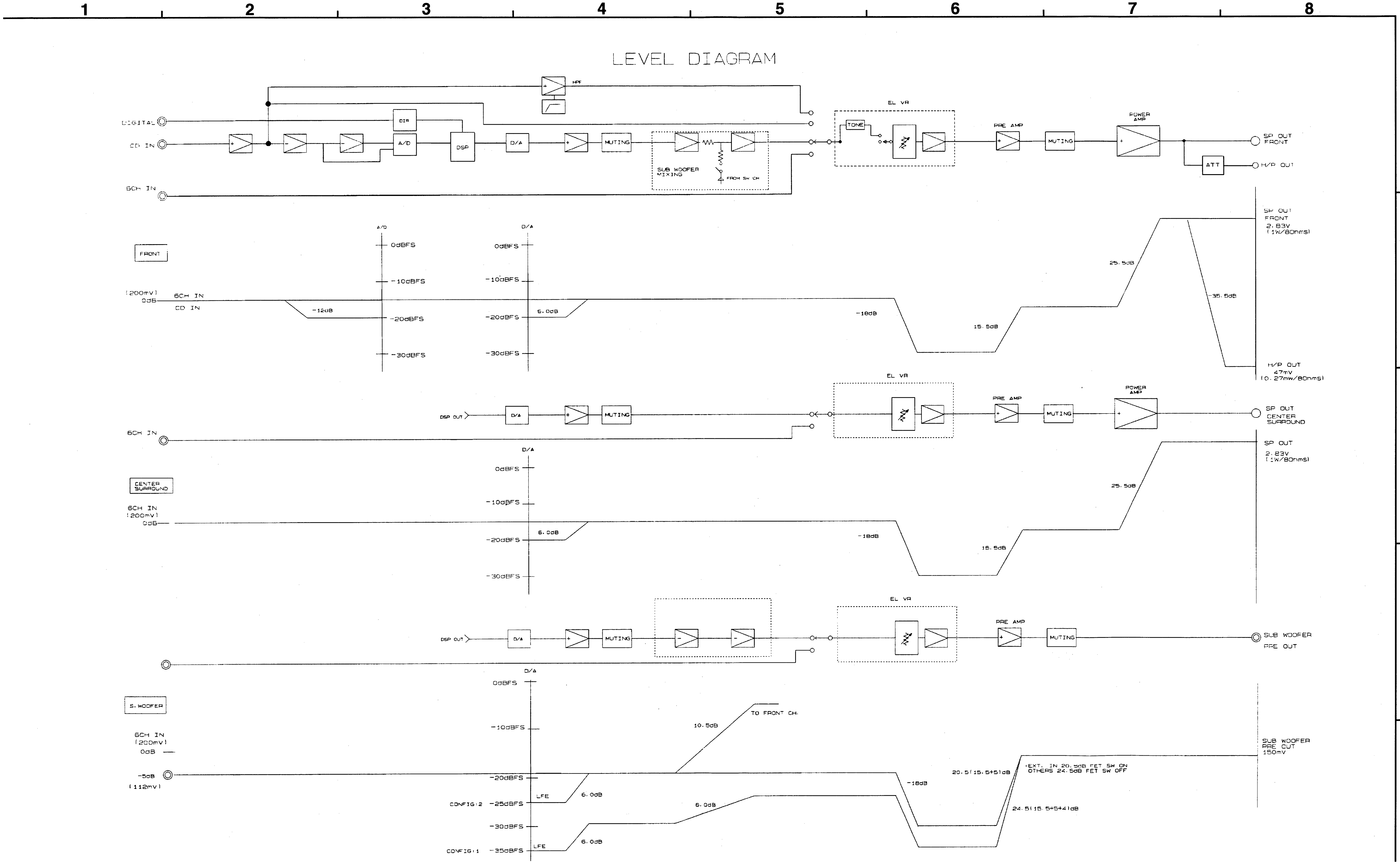
(5) Within 2 minutes after the power on, turn VR101 clockwise (↻) to adjust the TEST POINT voltage to 1.5 mV ±0.5 mV DC.

(6) After 10 minutes from the preset above, turn VR101 to set the voltage to 2.5 mV ±0.5 mV DC.

(7) Adjust the Variable Resistors of other channels in the same way.



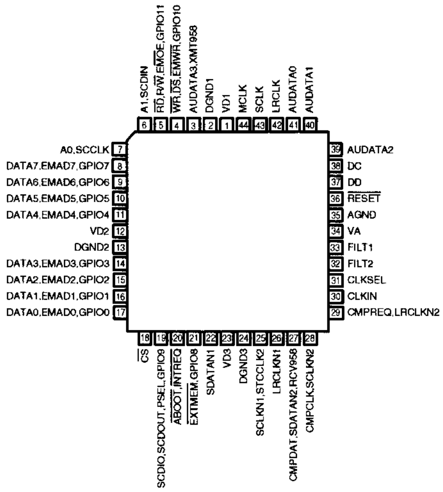
LEVEL DIAGRAM


1
2
3
4
5
6
7
8
A
B
C
D
E
LEVEL DIAGRAM
HPF
DIGITAL
CD IN
6CH IN
DIR
A/D
DSP
D/A
MUTING
SUB WOOFER MIXING
FROM SW CH
EL VR
TONE
PRE AMP
POWER AMP
ATT
SP OUT FRONT
H/P OUT
FRONT
A/D
D/A
0dBFS
-10dBFS
-20dBFS
-30dBFS
(200mV) 0dB
6CH IN
CD IN
-12dB
6.0dB
-18dB
15.5dB
25.5dB
35.5dB
SP OUT FRONT 2.83V (1W/8Ohms)
H/P OUT 47mV (0.27mW/8Ohms)
DSP OUT
CENTER SURROUND
SP OUT CENTER SURROUND
SP OUT 2.83V (1W/8Ohms)
6CH IN (200mV) 0dB
S.WOOFER
6CH IN (200mV) 0dB
-5dB (112mV)
SUB WOOFER PRE OUT
SUB WOOFER PRE OUT 150mV
CONFIG:2 -25dBFS
CONFIG:1 -35dBFS
LFE
10.5dB
TO FRONT CH.
20.5(15.5+5)dB
24.5(15.5+5+4)dB
(EXT. IN 20.5dB FET SW ON
OTHERS 24.5dB FET SW OFF

SEMICONDUCTORS

● ICs

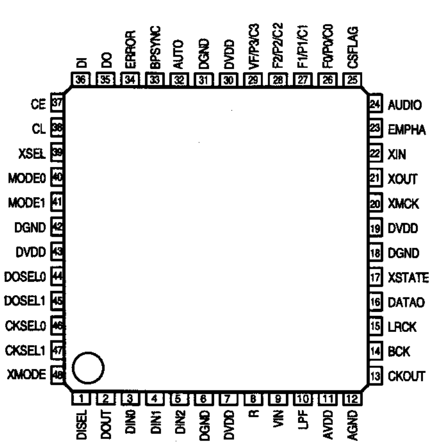
CS493263-CL
(AU: IC812)


A1,SCDIN
$\overline{RD}$,R/$\overline{W}$,$\overline{EMOE}$,GPIO11
$\overline{WR}$,$\overline{DS}$,$\overline{EMWR}$,GPIO10
AUDATA3,XMT958
DGND1
VD1
MCLK
SCLK
LRCLK
AUDATA0
AUDATA1
6
5
4
3
2
1
44
43
42
41
40
A0,SCCLK 7
DATA7,EMAD7,GPIO7 8
DATA6,EMAD6,GPIO6 9
DATA5,EMAD5,GPIO5 10
DATA4,EMAD4,GPIO4 11
VD2 12
DGND2 13
DATA3,EMAD3,GPIO3 14
DATA2,EMAD2,GPIO2 15
DATA1,EMAD1,GPIO1 16
DATA0,EMAD0,GPIO0 17
39 AUDATA2
38 DC
37 DD
36 $\overline{RESET}$
35 AGND
34 VA
33 FILT1
32 FILT2
31 CLKSEL
30 CLKIN
29 CMPREQ,LRCLKN2
18
19
20
21
22
23
24
25
26
27
28
$\overline{CS}$
SCDIO,SCDOUT,PSEL,GPIO9
$\overline{ABOOT}$,$\overline{INTREQ}$
$\overline{EXTMEM}$,GPIO8
SDATAN1
VD3
DGND3
SCLKN1,STCCLK2
LRCLKN1
CMPDAT,SDATAN2,RCV958
CMPCLK,SCLKN2

CS493263-CL Terminal Function

Pin No.	Pin Name	Function
1	VD1	Digital positive supply
2	DGND1	Digital supply ground
3	AUDATA3, XMT958	SPDIF transmitter output, Digital audio output 3
4	$\overline{WR}$, $\overline{DS}$, $\overline{EMWR}$, GPIO10	Host write strobe or host data strobe or external memory write enable or general purpose input & output number 10
5	$\overline{RD}$, R/$\overline{W}$, $\overline{EMOE}$, GPIO11	Host parallel output enable or host parallel R/$\overline{W}$ or external memory output enable or general purpose input & output number11
6	A1, SCDIN	Host address bit one or SPI serial control data input
7	A0, SCCLK	Host parallel address bit zero or serial control port clock
8	DATA7, EMAD7, GPIO7	
9	DATA6, EMAD6, GPIO6	
10	DATA5, EMAD5, GPIO5	
11	DATA4, EMAD4, GPIO4	
12	VD2	Digital positive supply
13	DGND2	Digital supply ground
14	DATA3, EMAD3, GPIO3	
15	DATA2, EMAD2, GPIO2	
16	DATA1, EMAD1, GPIO1	
17	DATA0, EMAD0, GPIO0	
18	$\overline{CS}$	Host parallel chip select, host serial SPI chip select
19	SCDIO, SCDOUT, PSEL, GPIO9	Serial control port data input and output, parallel port type select
20	$\overline{INTREQ}$, $\overline{ABOOT}$	Control port interrupt request, automatic boot enable
21	$\overline{EXTMEM}$, GPIO8	External memory chip select or general purpose input & output number 8
22	SDATAN1	PCM audio data input number one
23	VD3	Digital positive supply
24	DGND3	Digital supply ground
25	SCLKN1, STCCLK2	PCM audio input bit clock
26	LRCLKN1	PCM audio input sample rate clock
27	CMPDAT, SDATAN2, RCV958	PCM audio data input number two
28	CMPCLK, SCLKN2	PCM audio input bit clock
29	CMPREQ, LRCLKN2	PCM audio input sample rate clock
30	CLKIN	Master clock input
31	CLKSEL	DSP clock select
32	FILT2	Phase locked loop filter
33	FILT1	Phase locked loop filter
34	VA	Analog positive supply
35	AGND	Analog supply ground
36	$\overline{RESET}$	Master reset input
37	DD	Reserved
38	DC	Reserved
39	AUDATA2	Digital audio output 2
40	AUDATA1	Digital audio output 1
41	AUDATA0	Digital audio output 0
42	LRCLK	Audio output sample rate clock
43	SCLK	Audio output bit clock
44	MCLK	Audio master clock

LC89055W (IC810)

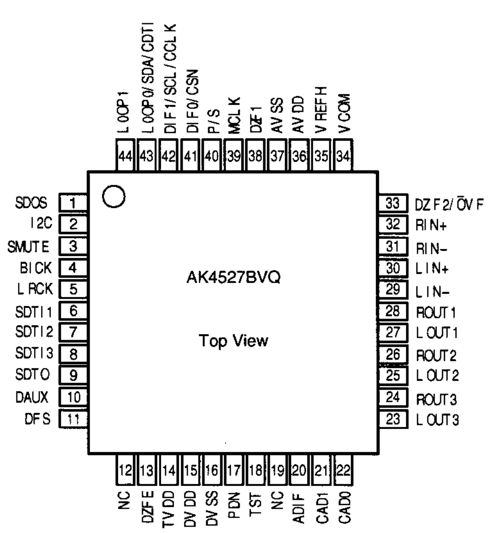

DI 36
DO 35
ERROR 34
BPSYNC 33
AUTO 32
DGND 31
DVDD 30
VF/P3/C3 29
F2/P2/C2 28
F1/P1/C1 27
F0/P0/C0 26
CSFLAG 25
CE 37
CL 38
XSEL 39
MODE0 40
MODE1 41
DGND 42
DVDD 43
DOSEL0 44
DOSEL1 45
CKSEL0 46
CKSEL1 47
XMODE 48
24 AUDIO
23 EMPHA
22 XIN
21 XOUT
20 XMCK
19 DVDD
18 DGND
17 XSTATE
16 DATAO
15 LRCK
14 BCK
13 CKOUT
1 DISEL
2 DOUT
3 DIN0
4 DIN1
5 DIN2
6 DGND
7 DVDD
8 R
9 VIN
10 LPF
11 AVDD
12 AGND

LC89055W Terminal Function

Pin No.	Pin Name	I/O	Function
1	DISEL	I	Data input terminal (select input pin of DIN0, DIN1)
2	DOUT	O	Input bi-phase data through output terminal
3	DIN0	I	Amp built-in coaxial/optical input correspond data input terminal
4	DIN1	I	Amp built-in coaxial/optical input correspond data input terminal
5	DIN2	I	Optical input correspond data input terminal
6	DGND		Digital GND
7	DVDD		Digital power supply
8	R	I	VCO gain control input terminal
9	VIN	I	VCO free-run frequency setting input terminal
10	LPF	O	PLL loop filter setting terminal
11	AVDD		Analog power supply
12	AGND		Analog GND
13	CKOUT	O	Clock output terminal (256fs, 384fs, 512fs, X'tal osc., VCO free-run osc.)
14	BCK	O	64fs clock output terminal
15	LRCK	O	fs clock output terminal (L: Rch, H: Lch, I²S: Reverse)
16	DATAO	O	Data output terminal
17	XSTATE	O	Input data detecting result output terminal
18	DGND		Digital GND
19	DVDD		Digital power supply
20	XMCK	O	X'tal osc. clock output terminal (24.576MHz or 12.288MHz)
21	XOUT	O	X'tal osc. connection output terminal
22	XIN	I	X'tal osc. connection input terminal, external signal input possible (24.576MHz or 12.288MHz)
23	EMPHA	O	Emphasis information output terminal of channel status
24	AUDIO	O	Bit1 output terminal of channel status
25	CSFLAG	O	Top 40bit revise flag output terminal of channel status
26	F0/P0/C0	O	Input fs cal. sig. out/data type out/input word inf. output terminal
27	F1/P1/C1	O	Input fs cal. sig. out/data type out/input word inf. output terminal
28	F2/P2/C2	O	Input fs cal. sig. out/data type out/input word inf. output terminal
29	VF/P3/C3	O	Validity flag out/data type out/input word inf. output terminal
30	DVDD		Digital power supply
31	DGND		Digital GND
32	AUTO	O	Non PCM burst data transfer detect sig. output terminal
33	BPSYNC	O	Non PCM burst data preamble Pa, Pb, Pc, Pd sync sig. output terminal
34	ERROR	O	PLL lock error, data error flag output terminal
35	DO	O	CPU/IFD read data output terminal
36	DI	I	CPU I/F write data input terminal
37	CE	I	CPU I/F chip enable input terminal
38	CL	I	CPU I/F chip enable input terminal
39	XSEL	I	Frequency select input pin of XIN X'tal osc. (24.576MHz or 12.288MHz)
40	MODE0	I	Mode setting input terminal
41	MODE1	I	Mode setting input terminal
42	DGND		Digital GND
43	DVDD		Digital power supply
44	DOSEL0	I	Data output format select input terminal
45	DOSEL1	I	Data output format select input terminal
46	CKSEL0	I	Output clock select input terminal
47	CKSEL1	I	Output clock select input terminal
48	XMODE	I	Reset input terminal

- For latch-up countermeasure, set digital (DVDD) and analog (AVDD) power on/off in the same timing.

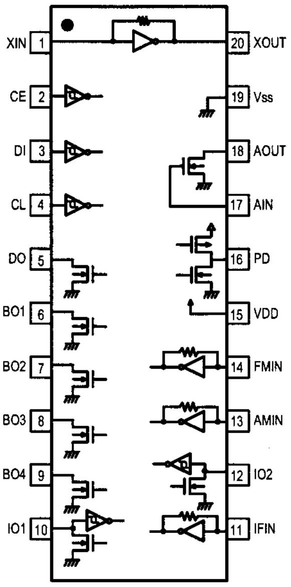
AK4527BVQ (IC813)


LOOP1
LOOP0/SDA/CDTI
DIF1/SCL/CCLK
DIF0/CSN
P/S
MCLK
DZF1
AVSS
AVDD
VREFH
VCOM
44
43
42
41
40
39
38
37
36
35
34
SDOS 1
I2C 2
SMUTE 3
BICK 4
LRCK 5
SDTI1 6
SDTI2 7
SDTI3 8
SDTO 9
DAUX 10
DFS 11
AK4527BVQ
Top View
33 DZF2/OVF
32 RIN+
31 RIN-
30 LIN+
29 LIN-
28 ROUT1
27 LOUT1
26 ROUT2
25 LOUT2
24 ROUT3
23 LOUT3
12
13
14
15
16
17
18
19
20
21
22
NC
DZFE
TVDD
DVDD
DVSS
PDN
TST
NC
ADIF
CAD1
CAD0

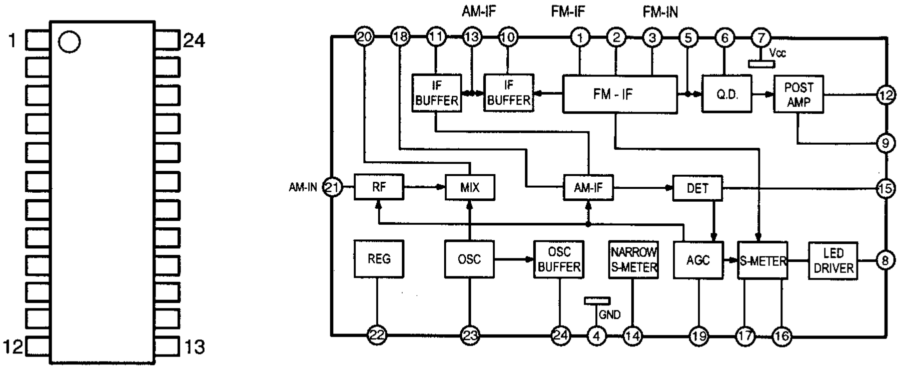
AK4527BVQ Terminal Function

Pin No.	Pin Name	I/O	Function
1	SDOS	I	SDTO source select pin, L: Internal ADC output, H: DAUX input
2	I2C	I	Serial control mode select pin, L: 3-core serial, H: I^2C bus
3	SMUTE	I	Soft mute pin, H: Soft mute start, L: Release
4	BICK	I	Audio serial data clock pin
5	LRCK	I	Input channel clock pin
6	SDTI1	I	DAC1 audio serial data input pin
7	SDTI2	I	DAC2 audio serial data input pin
8	SDTI3	I	DAC3 audio serial data input pin
9	SDTO	O	Audio serial data output pin
10	DAUX	I	Auxiliary audio serial data input pin
11	DFS	I	Double speed sampling mode pin, L: Normal, H: Double
12	NC	—	No Connect, No internal bonding
13	DZFE	I	Zero input detect enable pin
14	TVDD	—	Power pin for output buffer, 2.7V~5.5V
15	DVDD	—	Digital power pin, 4.5V~5.5V
16	DVss	—	Digital GND pin, 0V
17	PDN	I	Power down & reset pin, L: Powered-down and register initialized, Reset with PDN when switching CAD0-1
18	TST	I	Test pin, connected to DVSS
19	NC	—	No Connect, No internal bonding
20	ADIF	I	Analog Input Format Select pin
21	CAD1	I	Chip address-1 pin
22	CAD0	I	Chip address-0 pin
23	LOUT3	O	DAC3L channel analog out pin
24	ROUT3	O	DAC3R channel analog out pin
25	LOUT2	O	DAC2L channel analog out pin
26	ROUT2	O	DAC2R channel analog out pin
27	LOUT1	O	DAC1L channel analog out pin
28	ROUT1	O	DAC1R channel analog out pin
29	LIN-	I	L-ch analog inverted input pin
30	LIN+	I	L-ch analog non-inverted input pin
31	RIN-	I	R-ch analog inverted input pin
32	RIN+	I	R-ch analog non-inverted input pin
33	DZF2/OVF	O	0 input detect 2 pin/Analog input overflow detect pin
34	VCOM	O	Common V-out pin, AVDD/2, connect large capacitor to avoid noise
35	VREFH	I	Ref. V input pin, AVDD
36	AVDD	—	Analog GND pin, 4.5V~5.5V
37	AVss	—	Analog GND pin, 0V
38	DZF1	O	0 input detect pin, H: Input data of G1 is 8192 times “0” in a raw or RSTN bit “0”, L: When P/S= “0”
39	MCLK	I	Master clock input pin
40	P/S	I	Parallel/Serial select pin, L: Serial control
41	DIF0	I	Audio data I/F format 0 pin (parallel control)
	CSN	I	Chip select pin (3-wire serial control), connect to DVDD when I^2C bus control
42	DIFI	I	Audio data I/F format 1 pin (parallel control)
	SCL/CCLK	I	Control data clock pin (serial control), I^2C=”L”: CCLK (3-wire serial), I^2C=”H”: SCL (I^2C bus)
43	LOOP0	I	Loop back mode 0 pin (parallel control), effects digital loop back ADC to all DAC
	SDA/CDTI	I/O	Control data input pin (serial control), I^2C=”L”: CCTI (3-wire serial), I2C=”H” SDA (I^2C bus)
44	LOOP1	I	Loop back mode 1 pin, from SDT1 to all DAC

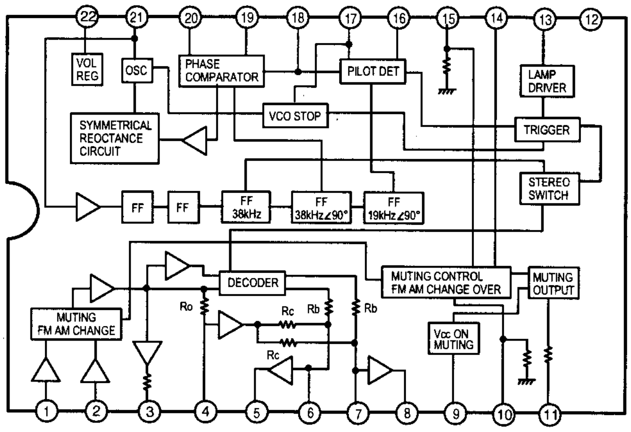
LC72131 (IC401)


XIN 1
CE 2
DI 3
CL 4
DO 5
BO1 6
BO2 7
BO3 8
BO4 9
IO1 10
20 XOUT
19 Vss
18 AOUT
17 AIN
16 PD
15 VDD
14 FMIN
13 AMIN
12 IO2
11 IFIN

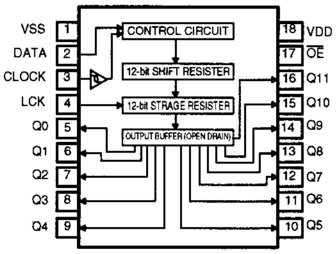
LA1266 (IC402)


1
24
12
13
AM-IF
FM-IF
FM-IN
Vcc
IF BUFFER
IF BUFFER
FM - IF
Q.D.
POST AMP
AM-IN
RF
MIX
AM-IF
DET
REG
OSC
OSC BUFFER
NARROW S-METER
AGC
S-METER
LED DRIVER
GND

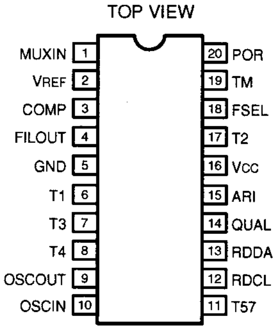
LA3401 (IC403)


VOL REG
OSC
PHASE COMPARATOR
PILOT DET
LAMP DRIVER
VCO STOP
SYMMETRICAL REOCTANCE CIRCUIT
TRIGGER
STEREO SWITCH
FF
FF
FF 38kHz
FF 38kHz∠90°
FF 19kHz∠90°
DECODER
MUTING CONTROL FM AM CHANGE OVER
MUTING OUTPUT
MUTING FM AM CHANGE
Ro
Rc
Rb
Rb
Rc
Vcc ON MUTING

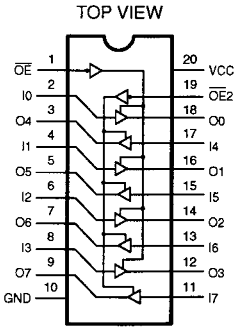
BU2090F (IC302, 602)


VSS 1
DATA 2
CLOCK 3
LCK 4
Q0 5
Q1 6
Q2 7
Q3 8
Q4 9
18 VDD
17 OE
16 Q11
15 Q10
14 Q9
13 Q8
12 Q7
11 Q6
10 Q5
CONTROL CIRCUIT
12-bit SHIFT RESISTER
12-bit STRAGE RESISTER
OUTPUT BUFFER (OPEN DRAIN)

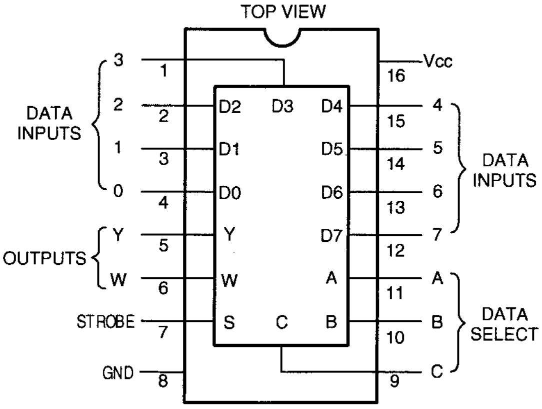
TDA7330BD (IC202)


TOP VIEW
MUXIN 1
VREF 2
COMP 3
FILOUT 4
GND 5
T1 6
T3 7
T4 8
OSCOUT 9
OSCIN 10
20 POR
19 TM
18 FSEL
17 T2
16 Vcc
15 ARI
14 QUAL
13 RDDA
12 RDCL
11 T57

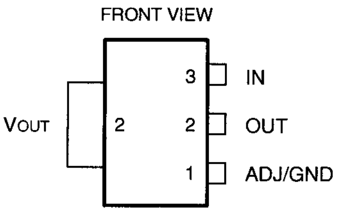
MM74LCX244 (IC818,819)


TOP VIEW
OE 1
I0 2
O4 3
I1 4
O5 5
I2 6
O6 7
I3 8
O7 9
GND 10
20 VCC
19 OE2
18 O0
17 I4
16 O1
15 I5
14 O2
13 I6
12 O3
11 I7

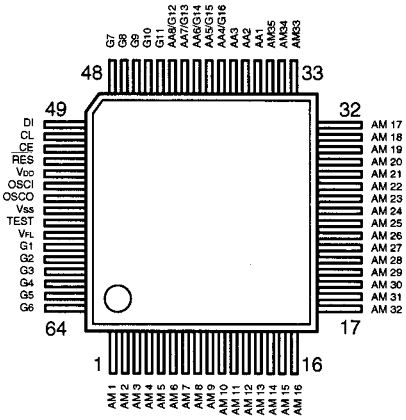
MM74HC151 (IC832)


TOP VIEW
DATA INPUTS
3
2
1
0
OUTPUTS
Y
W
STROBE
GND
1
2
3
4
5
6
7
8
D2
D3
D4
D1
D5
D0
D6
Y
D7
W
A
S
C
B
Vcc
16
15
14
13
12
11
10
9
4
5
6
7
A
B
C
DATA INPUTS
DATA SELECT

RC1117S25T (IC820)
RC1117S33ST (IC811)


FRONT VIEW
VOUT
2
3
IN
2
OUT
1
ADJ/GND

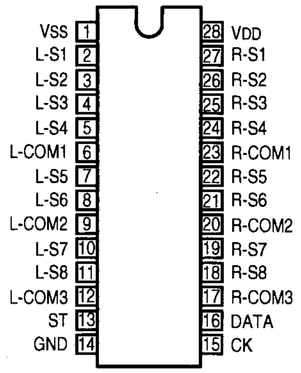
LC75721E (IC301)


G7
G8
G9
G10
G11
AA8/G12
AA7/G13
AA6/G14
AA5/G15
AA4/G16
AA3
AA2
AA1
AM35
AM34
AM33
48
33
49
32
DI
CL
CE
RES
VDD
OSCI
OSCO
Vss
TEST
VFL
G1
G2
G3
G4
G5
G6
AM 17
AM 18
AM 19
AM 20
AM 21
AM 22
AM 23
AM 24
AM 25
AM 26
AM 27
AM 28
AM 29
AM 30
AM 31
AM 32
64
17
1
16
AM 1
AM 2
AM 3
AM 4
AM 5
AM 6
AM 7
AM 8
AM 9
AM 10
AM 11
AM 12
AM 13
AM 14
AM 15
AM 16

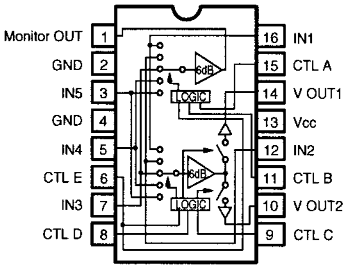
LC75721E Terminal Function

Symbol	Function
V_{DD}	Power terminal +5V
V_{SS}	Power terminal GND
V_{FL}	Power terminal FL drive
DI CL CE	Serial data transfer terminal DI: Data CL: Clock CE: Chip enable
OSCI OSCO	External CR connecting terminal
$\overline{\text{RES}}$	System reset terminal
AM1~AM35 AA1~AA3	Anode output terminal
AA4/G16 AA5/G15 AA6/G14 AA7/G13 AA8/G12	Anode/Grid output terminal
G1~G11	Grid output terminal
TEST	LSI test terminal

KIC9164AN (IC203)


VSS 1
L-S1 2
L-S2 3
L-S3 4
L-S4 5
L-COM1 6
L-S5 7
L-S6 8
L-COM2 9
L-S7 10
L-S8 11
L-COM3 12
ST 13
GND 14
28 VDD
27 R-S1
26 R-S2
25 R-S3
24 R-S4
23 R-COM1
22 R-S5
21 R-S6
20 R-COM2
19 R-S7
18 R-S8
17 R-COM3
16 DATA
15 CK

BA7626 (IC601, 651, 652)


Monitor OUT 1
GND 2
IN5 3
GND 4
IN4 5
CTL E 6
IN3 7
CTL D 8
16 IN1
15 CTL A
14 V OUT1
13 Vcc
12 IN2
11 CTL B
10 V OUT2
9 CTL C
6dB
LOGIC
6dB
LOGIC

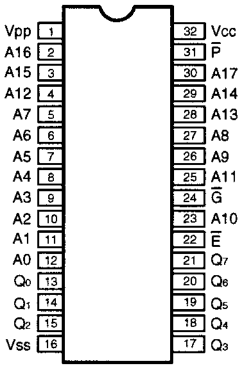
A	B	E	MONITOR OUT
L	L	*	IN 1
H	L	*	IN 2
L	H	*	IN 3
H	H	L	IN 4
H	H	H	IN 5

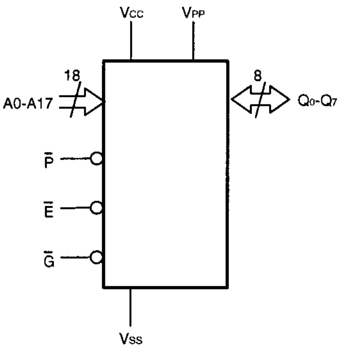
C	D	E	V OUT 1
L	L	*	—
H	L	*	IN 2
L	H	*	IN 3
H	H	L	IN 4
H	H	H	IN 5

C	D	E	V OUT 2
L	L	*	IN 1
H	L	*	—
L	H	*	IN 3
H	H	L	IN 4
H	H	H	IN 5

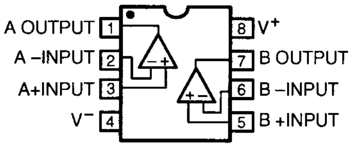
Note 1: * mark means that feasible for either H or L.
Note 2: Each input terminal is provided with sink chip clamp (BA7625).
Each input terminal takes 20kohm at the end (BA7626).

M27W201 (IC807)

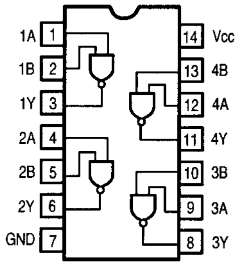

Vpp 1
A16 2
A15 3
A12 4
A7 5
A6 6
A5 7
A4 8
A3 9
A2 10
A1 11
A0 12
Q0 13
Q1 14
Q2 15
Vss 16
32 Vcc
31 P
30 A17
29 A14
28 A13
27 A8
26 A9
25 A11
24 G
23 A10
22 E
21 Q7
20 Q6
19 Q5
18 Q4
17 Q3


Vcc
VPP
18
A0-A17
8
Q0-Q7
P
E
G
Vss

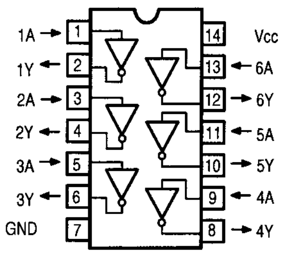
NJM2068DD (IC205~210, 551, 702~704, 814~816) BA4510F (IC805~806) NJM2068MD (IC814~816)


A OUTPUT 1
A -INPUT 2
A+INPUT 3
V⁻ 4
8 V⁺
7 B OUTPUT
6 B -INPUT
5 B +INPUT

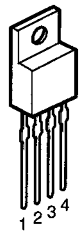
SN74LV00APW (IC822)

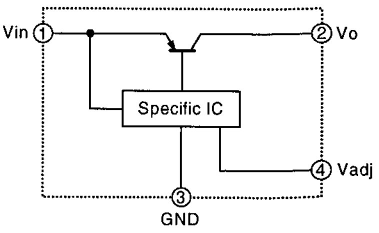

1A 1
1B 2
1Y 3
2A 4
2B 5
2Y 6
GND 7
14 Vcc
13 4B
12 4A
11 4Y
10 3B
9 3A
8 3Y

74HCU04 (IC803)

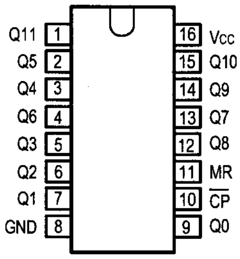

1A 1
1Y 2
2A 3
2Y 4
3A 5
3Y 6
GND 7
14 Vcc
13 6A
12 6Y
11 5A
10 5Y
9 4A
8 4Y

KIA78R05PI (IC653)




Vin ①
② Vo
Specific IC
④ Vadj
③
GND

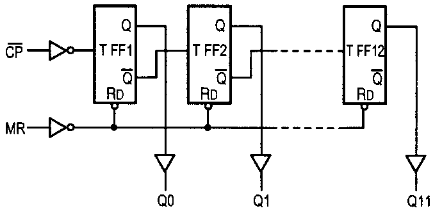
SN74LV4040 (IC831)


Q11 1
Q5 2
Q4 3
Q6 4
Q3 5
Q2 6
Q1 7
GND 8
16 Vcc
15 Q10
14 Q9
13 Q7
12 Q8
11 MR
10 $\overline{CP}$
9 Q0

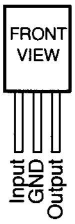
Terminal Function

INPUTS		OUTPUTS
$\overline{CP}$	MR	Qn
↑	L	no change
↓	L	count
X	H	L

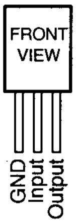
H=HIGH voltage level
L=LOW voltage level
X=don't care
↑=LOW-to-HIGH clock transition
↓=HIGH-to-LOW clock transition


$\overline{CP}$
MR
Q
T FF1
$\overline{Q}$
RD
Q
T FF2
$\overline{Q}$
RD
Q
T FF12
$\overline{Q}$
RD
Q0
Q1
Q11

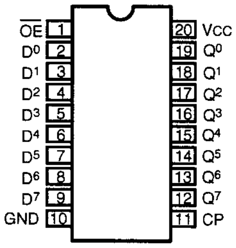
KIA7805AP (IC104)
KIA7815AP (IC101)
NJM7805FA(S) (IC103, 829)


FRONT VIEW
Input
GND
Output

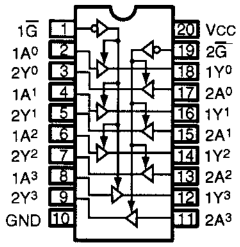
NJM7915FA (IC102)


FRONT VIEW
GND
Input
Output

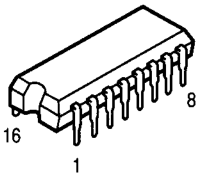
MM74LCX574 (IC808, 809)

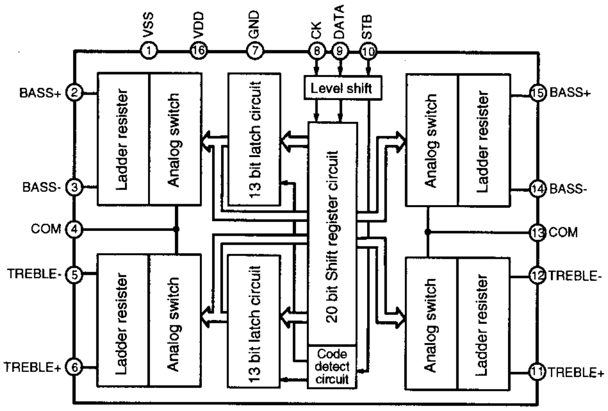

$\overline{OE}$ 1
D0 2
D1 3
D2 4
D3 5
D4 6
D5 7
D6 8
D7 9
GND 10
20 VCC
19 Q0
18 Q1
17 Q2
16 Q3
15 Q4
14 Q5
13 Q6
12 Q7
11 CP

MM74HCT244 (IC828, 830)


1$\overline{G}$ 1
1A0 2
2Y0 3
1A1 4
2Y1 5
1A2 6
2Y2 7
1A3 8
2Y3 9
GND 10
20 VCC
19 2$\overline{G}$
18 1Y0
17 2A0
16 1Y1
15 2A1
14 1Y2
13 2A2
12 1Y3
11 2A3

TC9184AP (IC552)

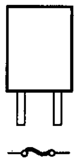



VSS 1
VDD 16
GND 7
CK 8
DATA 9
STB 10
BASS+ 2
BASS- 3
COM 4
TREBLE- 5
TREBLE+ 6
15 BASS+
14 BASS-
13 COM
12 TREBLE-
11 TREBLE+
Level shift
Ladder resister
Analog switch
13 bit latch circuit
20 bit Shift register circuit
Code detect circuit

● IC PROTECTOR

ICP-N15 (IC105)

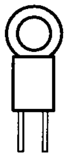
FRONT VIEW



● POSISTOR

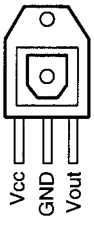
P43T7D330BW16

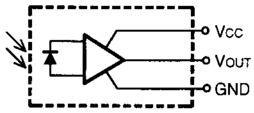
FRONT VIEW



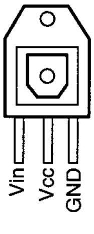
● OPTICAL

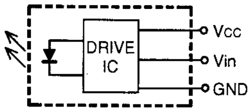
INPUT
GP1FA502RZ (IC817)


Vcc
GND
Vout


Vcc
VOUT
GND

OUTPUT
GP1FA502TZ(IC801, 802, 803)

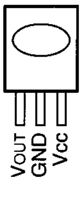


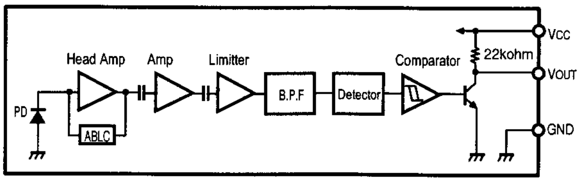

DRIVE IC
Vcc
Vin
GND

● IR SENSOR

NJL64H380A(RMC301)

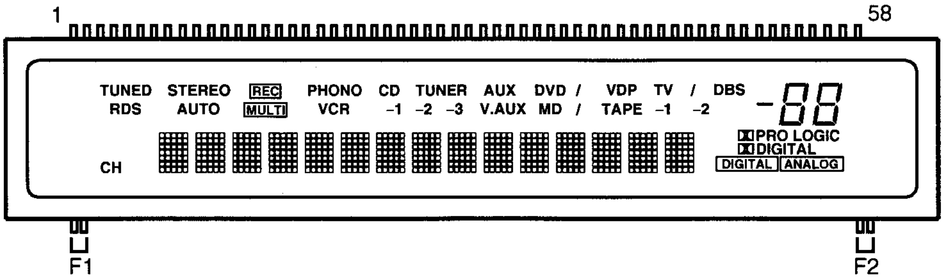
FRONT VIEW

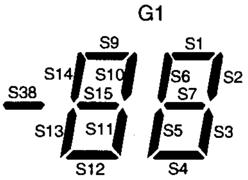

VOUT
GND
Vcc

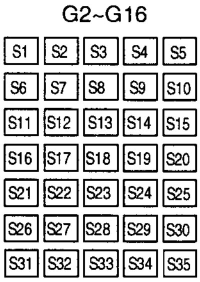

Head Amp
Amp
Limitter
Comparator
22kohm
PD
ABLC
B.P.F
Detector
VCC
VOUT
GND

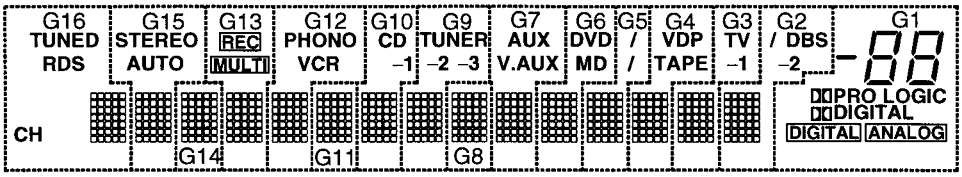
● FL DISPLAY

16-st-42GNK (FL301)


1
58
TUNED
RDS
STEREO
AUTO
REC
MULTI
PHONO
VCR
CD
-1
TUNER
-2
-3
AUX
V.AUX
DVD /
MD /
VDP
TAPE
TV
-1
/
-2
DBS
DD PRO LOGIC
DD DIGITAL
DIGITAL
ANALOG
CH
F1
F2


G1
S9
S1
S14
S10
S6
S2
S38
S15
S7
S13
S11
S5
S3
S12
S4


G2~G16
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
S11
S12
S13
S14
S15
S16
S17
S18
S19
S20
S21
S22
S23
S24
S25
S26
S27
S28
S29
S30
S31
S32
S33
S34
S35


G16
TUNED
RDS
G15
STEREO
AUTO
G13
REC
MULTI
G12
PHONO
VCR
G10
CD
-1
G9
TUNER
-2 -3
G7
AUX
V.AUX
G6
DVD
MD
G5
/
/
G4
VDP
TAPE
G3
TV
-1
G2
/ DBS
-2
G1
DD PRO LOGIC
DD DIGITAL
DIGITAL
ANALOG
CH
G14
G11
G8

Pin Assignment

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CONNECTION	F1	F1	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18
PIN NO.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CONNECTION	S19	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S31	S32	S33	S34	S35	S36	S37	S38
PIN NO.	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58		
CONNECTION	G16	G15	G14	G13	G12	G11	G10	G9	G8	G7	G6	G5	G4	G3	G2	G1	F2	F2		

F1, F2 : Filament
G1~G16: Grid
S1~S38 : Anode

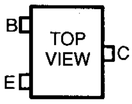
Anode & Grid Assignment

	G1	G2~G16		G1	G2~G16		G1	G2~G16		G1	G2~G16
S1	S1	S1	S10	S10	S10	S19	—	S19	S28	—	S28
S2	S2	S2	S11	S11	S11	S20	—	S20	S29	—	S29
S3	S3	S3	S12	S12	S12	S21	—	S21	S30	—	S30
S4	S4	S4	S13	S13	S13	S22	—	S22	S31	—	S31
S5	S5	S5	S14	S14	S14	S23	—	S23	S32	—	S32
S6	S6	S6	S15	S15	S15	S24	—	S24	S33	—	S33
S7	S7	S7	S16	—	S16	S25	—	S25	S34	—	S34
S8	—	S8	S17	DD DIGITAL	S17	S26	—	S26	S35	—	S35
S9	S9	S9	S18	DD PRO LOGIC	S18	S27	—	S27			

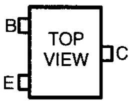
	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13	G14	G15	G16
S36	DIGITAL	/	TV	VDP	/(DVD)	DVD	AUX	—	TUNER	CD	—	PHONO	REC	—	STEREO	TUNED
S37	ANALOG	-2	-1	TAPE	/(MD)	MD	V.AUX	—	-2	-1	—	VCR	MULTI	—	AUTO	RDS
S38	S38	DBS	—	—	—	—	—	—	-3	—	—	—	—	—	—	CH

● TRANSISTORS

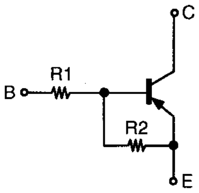
2SC2412K
KTC3880S


B
E
TOP VIEW
C

DTA114EK
DTA114YK
DTA144EK
DTC114EK
DTC114YK
DTC144EK

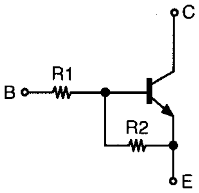

B
E
TOP VIEW
C

DTA Series



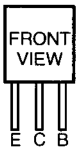
	R1	R2
DTA114EK	10kohm / Ω	10kohm / Ω
DTA114ES	10kohm / Ω	10kohm / Ω
DTA114YK	10kohm / Ω	47kohm / Ω
DTA144EK	47kohm / Ω	47kohm / Ω

DTC Series

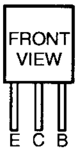


	R1	R2
DTC114EK	10kohm / Ω	10kohm / Ω
DTC114TS	10kohm / Ω	—
DTC114YK	10kohm / Ω	47kohm / Ω
DTC114YS	10kohm / Ω	47kohm / Ω
DTC144EK	47kohm / Ω	47kohm / Ω
DTC144ES	47kohm / Ω	47kohm / Ω

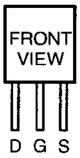
2SC1740S
2SC3199Y
KSA916Y
KSA992F
KSC1845F
KTA1266Y
KTA1268BL
KTC2874B
KTC3198Y
KTC3200BL


FRONT VIEW
E C B

DTA114ES
DTC114TS
DTC114YS
DTC144ES

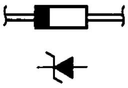

FRONT VIEW
E C B

2SK117

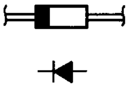

FRONT VIEW
D G S

● DIODES (LED included)

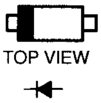
MTZJ3.3B
MTZJ5.1B
MTZJ5.6B
MTZJ6.8B
MTZJ7.5A
MTZJ7.5B
MTZJ11B
MTZJ18B
MTZJ20B



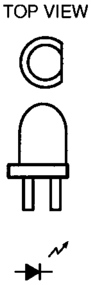
1N4007
1SS133



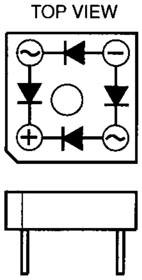
KDS160



HL-50RDRF4T

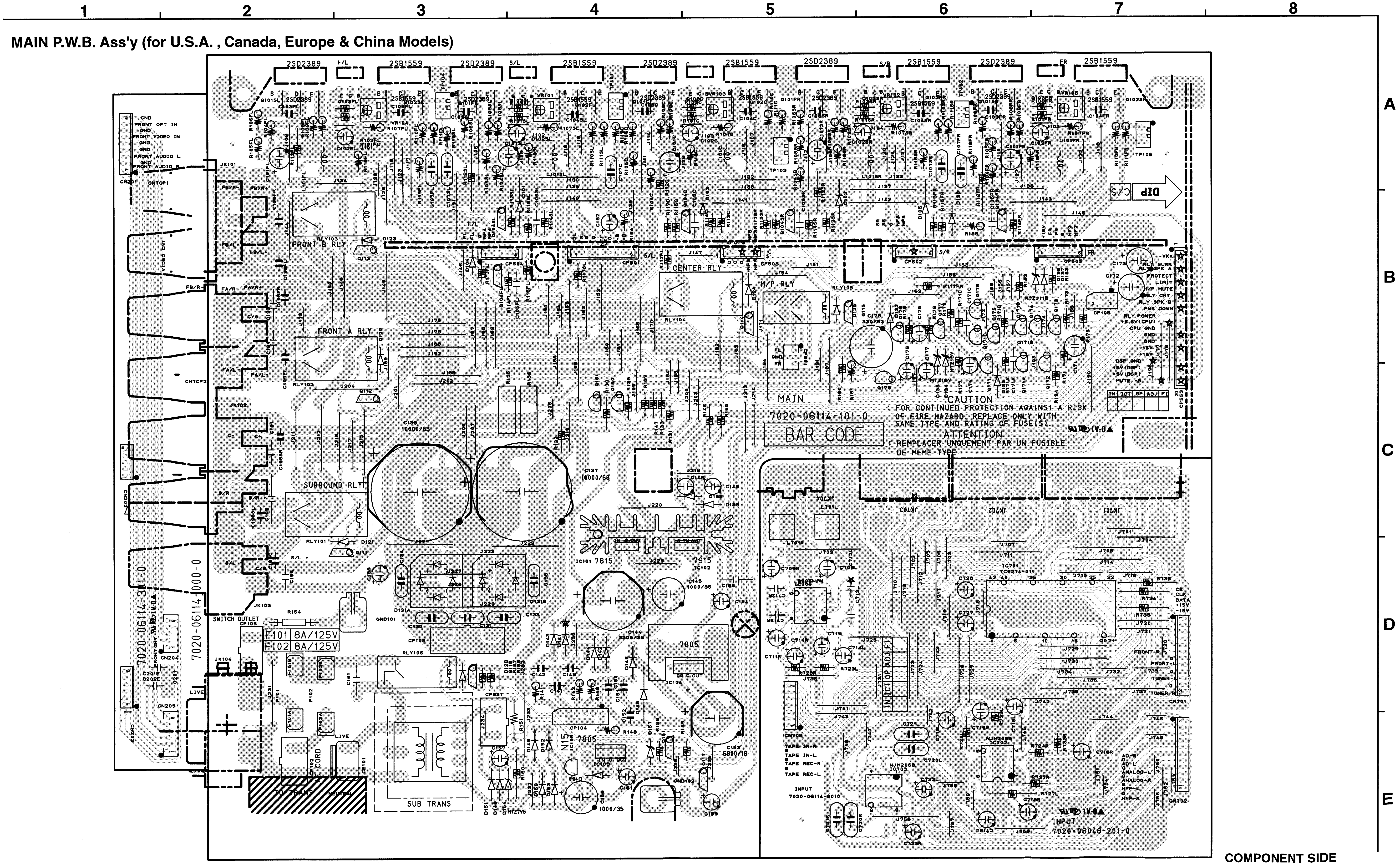


KBPC604



PRINTED WIRING BOARDS

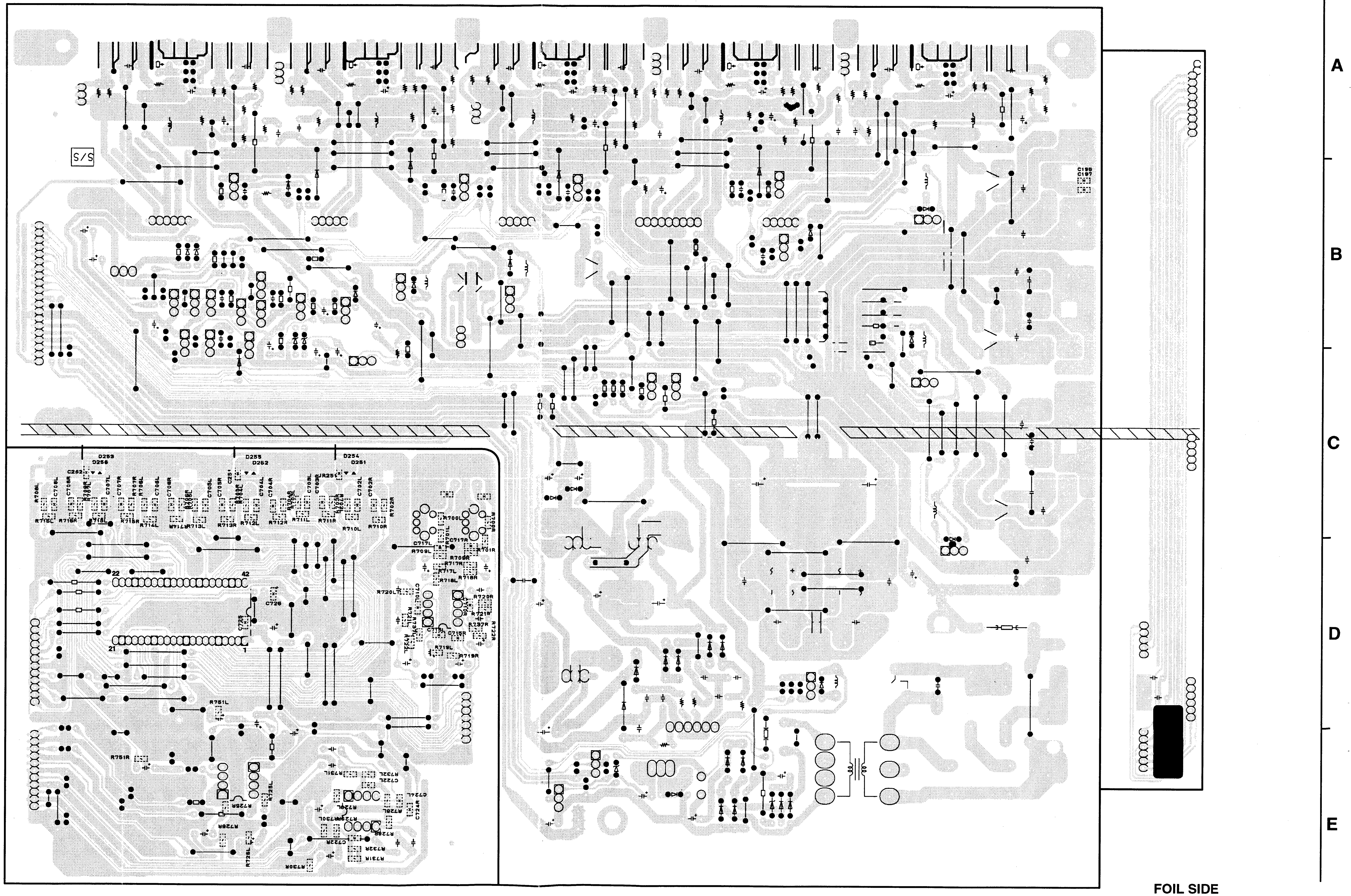
MAIN P.W.B. Ass'y (for U.S.A. , Canada, Europe & China Models)


1
2
3
4
5
6
7
8
A
B
C
D
E
2SD2389
2SB1559
F/L
S/L
C
S/R
FR
FRONT B RLY
FRONT A RLY
SURROUND RLY
CENTER RLY
H/P RLY
DIP
C/S
MAIN
7020-06114-101-0
BAR CODE
CAUTION
: FOR CONTINUED PROTECTION AGAINST A RISK OF FIRE HAZARD, REPLACE ONLY WITH SAME TYPE AND RATING OF FUSE(S).
ATTENTION
: REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE
C136 10000/63
C137 10000/63
7815
7915
7805
C144 3300/35
C145 1000/35
C153 6800/16
C158 1000/35
F101 8A/125V
F102 8A/125V
SWITCH OUTLET
SUB TRANS
TO TRANS
LIVE
CORD
7020-06114-301-0
7020-06114-1000-0
GND
FRONT OPT IN
FRONT VIDEO IN
FRONT AUDIO L
FRONT AUDIO R
IN ICT OP ADJ FI
JK703
JK702
JK701
JK704
IC701 TC9274-011
NJM2068 IC702
NJM2068 IC703
CE
CLK
DATA
+15V
-15V
FRONT-R
FRONT-L
TUNER-L
TUNER-R
TAPE IN-R
TAPE IN-L
TAPE REC-R
TAPE REC-L
AD-R
AD-L
ANALOG-L
ANALOG-R
HPF-L
HPF-R
INPUT
7020-06114-2010
INPUT
7020-06048-201-0
-VKK
RLY SURR
RLY SPK A
PROTECT
LIMIT
H/P MUTE
RLY CNT
RLY SPK B
PWR DOWN
RLY.POWER
+5.6V(CPU)
CPU GND
GND
-15V
+15V
DSP GND
+5V(DSP)
MUTE +B

COMPONENT SIDE

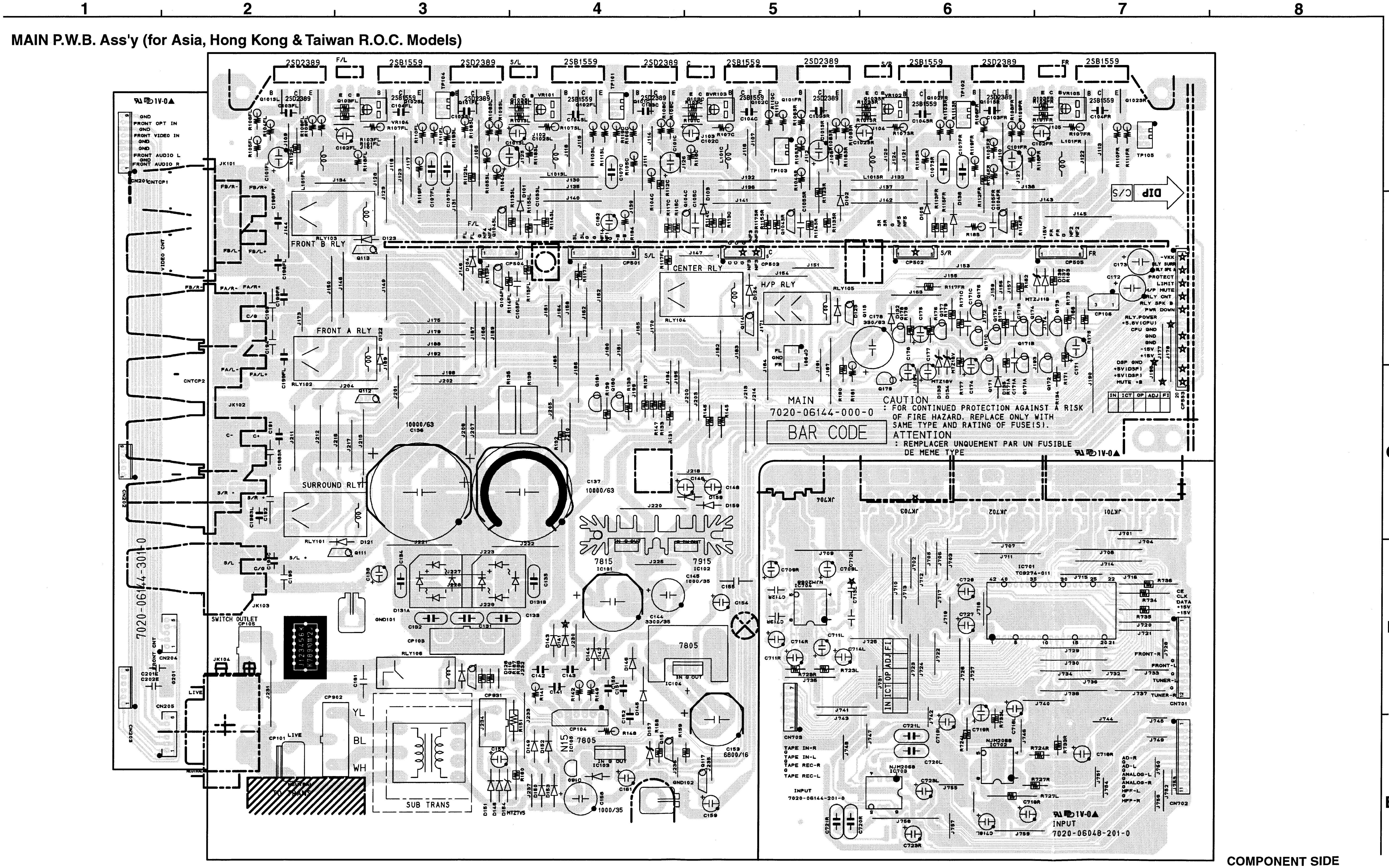
1 2 3 4 5 6 7 8

MAIN P.W.B. Ass'y (for U.S.A. , Canada, Europe & China Models)


A
B
C
D
E
S/S
D253
D256
D255
D262
D254
D261
C262
C196
C197
R700L
R701R
R709L
R709R
R720L
R720R
R751L
R751R
R726R
R728L
R730R
R731R
R732R
C726
C722L
C722R
C724L
C724R
22
42
21
1

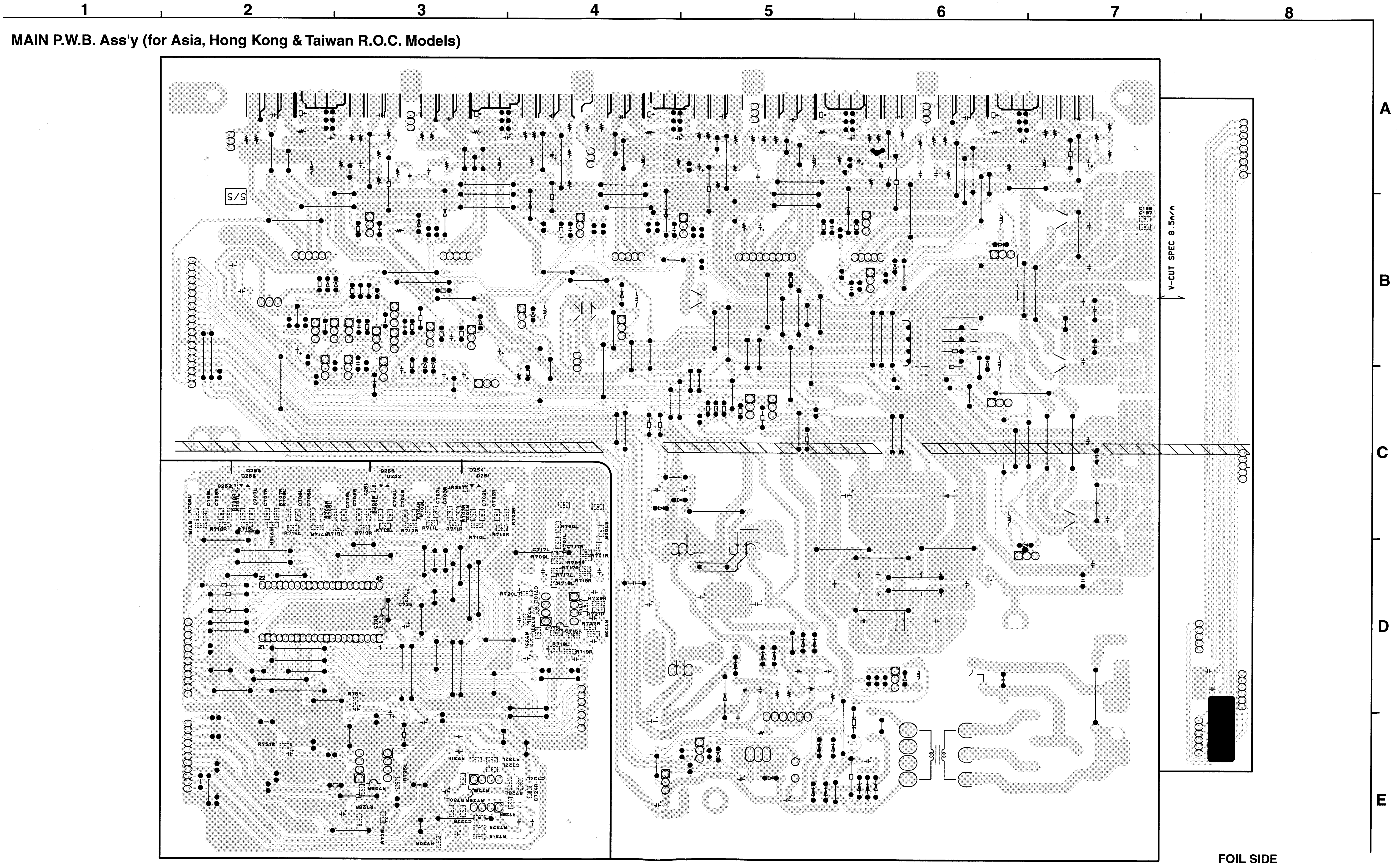
FOIL SIDE

MAIN P.W.B. Ass'y (for Asia, Hong Kong & Taiwan R.O.C. Models)


1
2
3
4
5
6
7
8
A
B
C
D
E
2SD2389
2SB1559
F/L
S/L
C
S/R
FR
DIP
C/S
FRONT B RLY
FRONT A RLY
SURROUND RLY
CENTER RLY
H/P RLY
RLY101
RLY102
RLY103
RLY104
RLY105
RLY106
JK101
JK102
JK103
JK104
JK701
JK702
JK703
JK704
CN201
CN202
CN203
CN204
CN205
CN701
CN702
CN703
GND
FRONT OPT IN
FRONT VIDEO IN
FRONT AUDIO L
FRONT AUDIO R
CNTCP1
CNTCP2
FB/R-
FB/R+
FB/L-
FB/L+
FA/R-
FA/R+
FA/L-
FA/L+
C/G
C-
C+
S/R +
S/L +
S/L
VIDEO CNT
7020-06144-301-0
SWITCH OUTLET
CP105
LIVE
NEUTRAL
CP101
CP902
CP931
YL
BL
WH
SUB TRANS
10000/63
C136
C137
7815
IC101
7915
IC102
7805
IC103
IC104
C145
1000/35
C144
3300/35
C153
6800/16
C156
1000/35
MTZTV5
GND101
GND102
D131A
D131B
MAIN
7020-06144-000-0
BAR CODE
CAUTION
: FOR CONTINUED PROTECTION AGAINST A RISK
OF FIRE HAZARD, REPLACE ONLY WITH
SAME TYPE AND RATING OF FUSE(S).
ATTENTION
: REMPLACER UNIQUEMENT PAR UN FUSIBLE
DE MEME TYPE
IN
ICT
OP
ADJ
FI
-VKK
RLY SURR
PROTECT
LIMIT
H/P MUTE
RLY CNT
RLY SPK B
PWR DOWN
RLY.POWER
+5.6V(CPU)
CPU GND
GND
-15V
+15V
DSP GND
+5V(DSP)
MUTE +5
CP106
CP501
CP502
CP503
CP504
CP505
CP931
IC701
TC9274-011
NJM2068
IC702
IC703
CE
CLK
DATA
+15V
-15V
FRONT-R
FRONT-L
TUNER-L
TUNER-R
TAPE IN-R
TAPE IN-L
TAPE REC-R
TAPE REC-L
AD-R
AD-L
ANALOG-L
ANALOG-R
HPF-L
HPF-R
INPUT
7020-06144-201-0
7020-06048-201-0

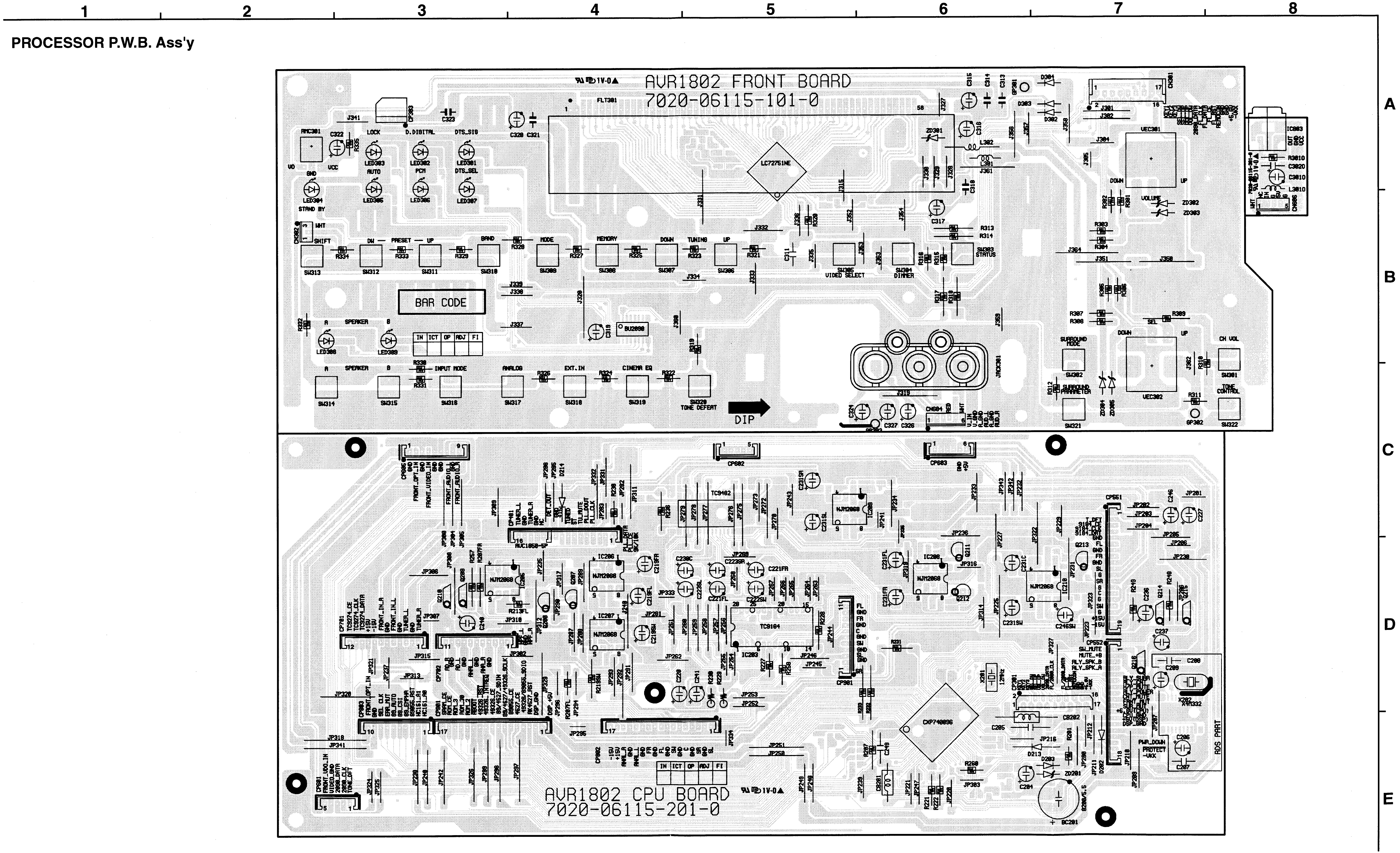
COMPONENT SIDE

MAIN P.W.B. Ass'y (for Asia, Hong Kong & Taiwan R.O.C. Models)


1
2
3
4
5
6
7
8
A
B
C
D
E
S/S
V-CUT SPEC 0.5m/m
D253
D256
D255
D252
D254
D251
C252
C251
JR251
R700L
R700R
R701L
R701R
R709L
R709R
C717L
C717R
R717L
R717R
R718L
R718R
R720L
R720R
R721R
R722R
R719L
R719R
C726
C725
R751L
R751R
R731L
R732L
C722L
C724L
C724R
R723R
R726R
R729R
R730L
R730R
R728L
R731R
R732R
C722R
22
42
21
1

FOIL SIDE

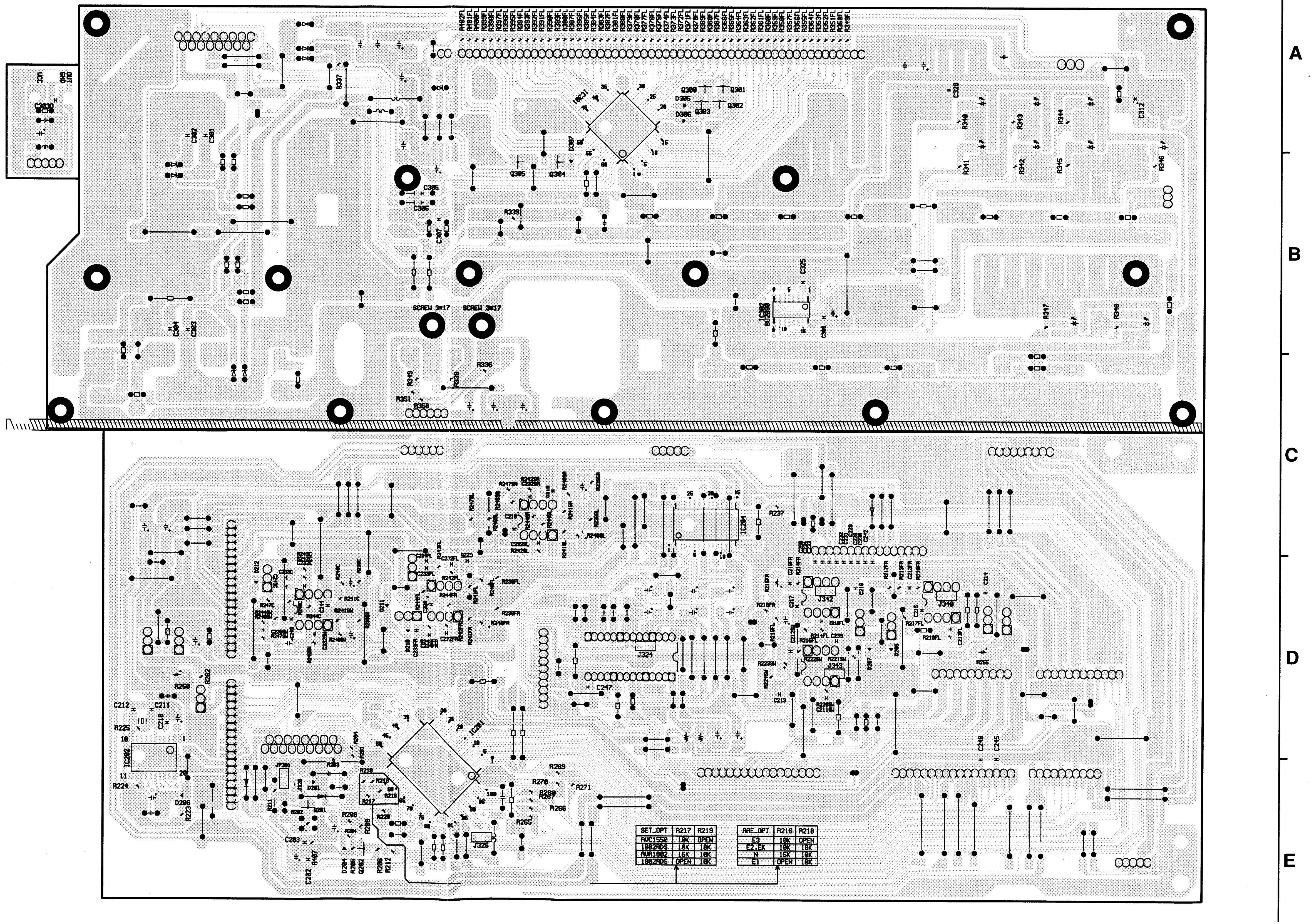
PROCESSOR P.W.B. Ass'y


1
2
3
4
5
6
7
8
A
B
C
D
E
AVR1802 FRONT BOARD
7020-06115-101-0
FLT301
LC72751NE
RMC301
LOCK
D.DIGITAL
DTS_SIG
LED303
LED302
LED301
AUTO
PCM
DTS_SEL
STAND BY
LED304
LED305
LED306
LED307
SHIFT
DW
PRESET
UP
BAND
MODE
MEMORY
DOWN
TUNING
SW313
SW312
SW311
SW310
SW309
SW308
SW307
SW306
SW305
VIDEO SELECT
SW304
DIMMER
SW303
STATUS
BAR CODE
SPEAKER
LED308
LED309
IN
ICT
OP
ADJ
FI
INPUT MODE
ANALOG
EXT.IN
CINEMA EQ
SW314
SW315
SW316
SW317
SW318
SW319
SW320
TONE DEFEAT
DIP
BU2090
JACK301
VEC301
VOLUME
DOWN
UP
SURROUND MODE
SW302
SURROUND PARAMETER
SEL
VEC302
CH VOL
SW301
TONE CONTROL
SW321
SW322
CN301
CN604
IC303
AVR1802 CPU BOARD
7020-06115-201-0
CP605
CP401
AVC1058-SP
CP602
CP603
CP551
CP552
IC205
IC206
IC207
IC208
IC210
NJM2068
TC9402
TC9164
IC203
CXP740096
CP701
CP702
CP802
CP803
CP901
CP601
X201
12MHz
X202
RDS PART
BC201
PWR_DOWN
PROTECT
-VKK

COMPONENT SIDE

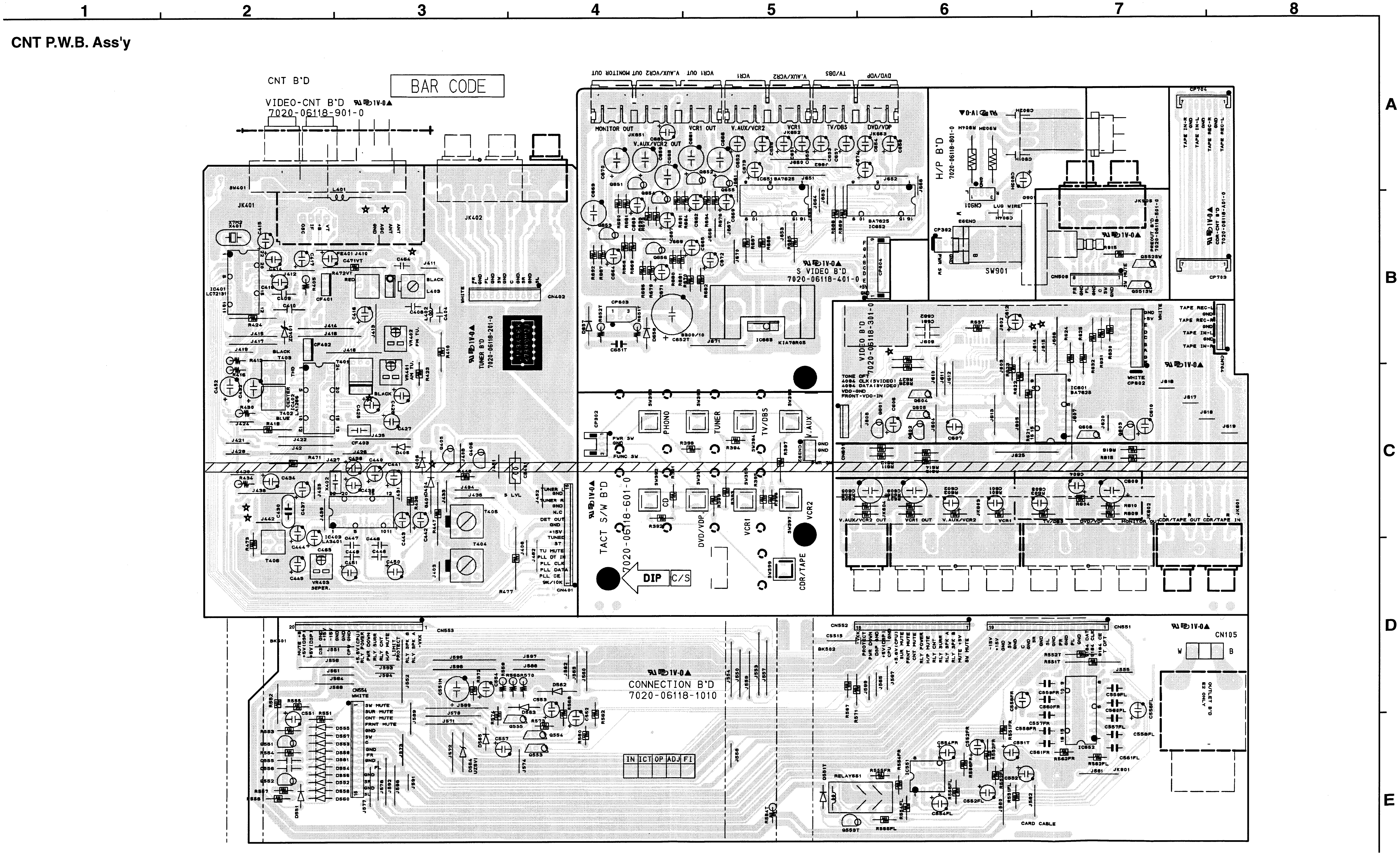
1 2 3 4 5 6 7 8

PROCESSOR P.W.B. Ass'y


A
B
C
D
E
SCREW 3≠17
SCREW 3≠17
SET_OPT | R217 | R219
AVC1550 | 10K | OPEN
1602RDS | 10K | 10K
AVR1802 | 15K | 10K
1802RDS | OPEN | 10K
ARE_OPT | R216 | R218
E3 | 10K | OPEN
E2,EK | 10K | 10K
N | 15K | 10K
E1 | OPEN | 10K
IC201
IC202
IC204
J324
J325
J340
J342
J343

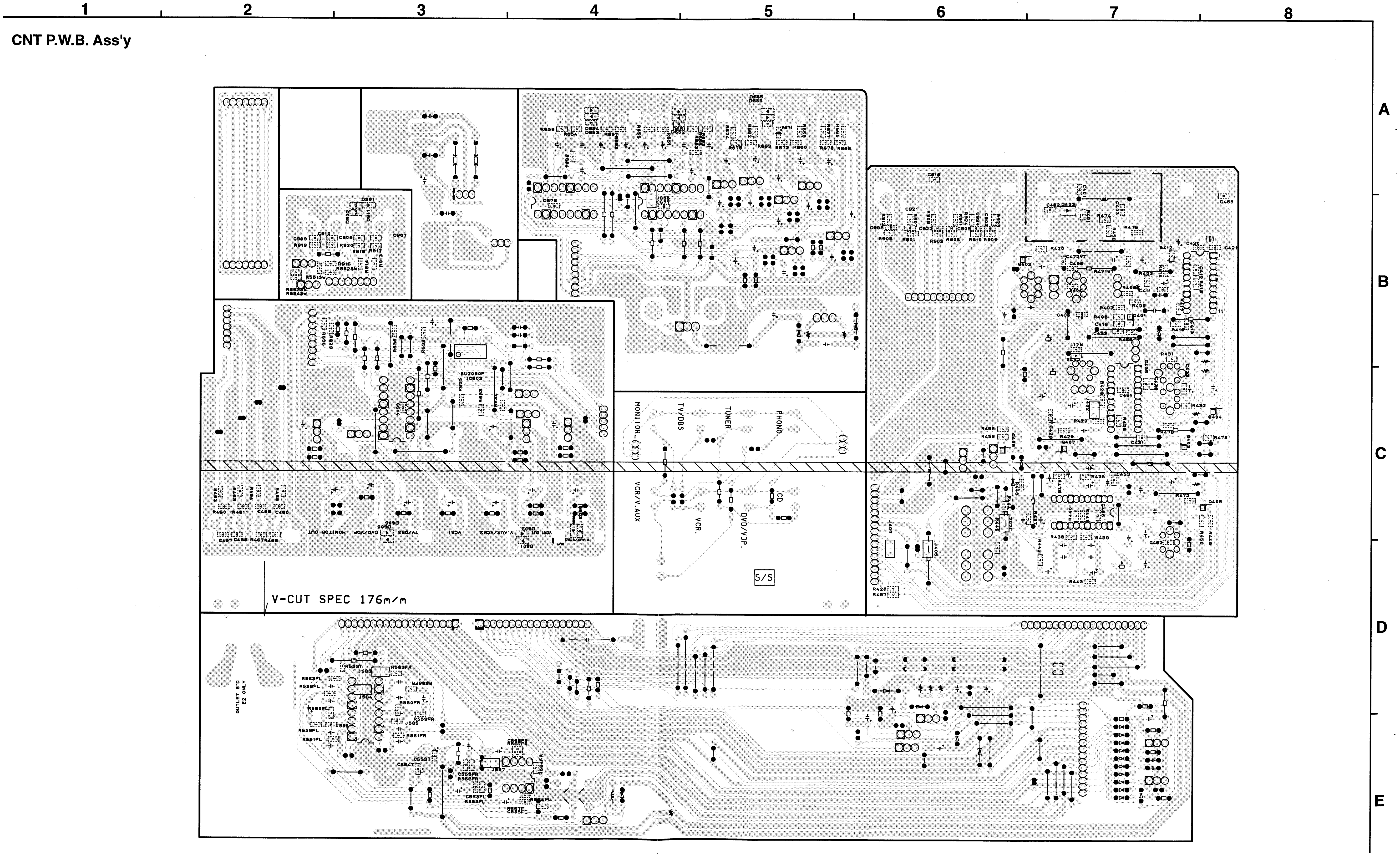
FOIL SIDE

CNT P.W.B. Ass'y


1
2
3
4
5
6
7
8
A
B
C
D
E
CNT B'D
VIDEO-CNT B'D
7020-06118-901-0
BAR CODE
TUNER B'D
7020-06118-201-0
S VIDEO B'D
7020-06118-401-0
H/P B'D
7020-06118-801-0
VIDEO B'D
7020-06118-301-0
TACT S/W B'D
7020-06118-601-0
CONNECTION B'D
7020-06118-1010
MONITOR OUT
VCR1 OUT
V.AUX/VCR2
VCR1
TV/DBS
DVD/VDP
V.AUX/VCR2 OUT
PHONO
TUNER
TV/DBS
V.AUX
CD
DVD/VDP
VCR1
VCR2
CDR/TAPE
DIP
C/S
SW901
CN105
OUTLET B'D
E2 ONLY
IN
ICT
OP
ADJ
FI
CDR/TAPE OUT
CDR/TAPE IN
JK401
JK402
CN402
CN401
CN551
CN552
CN553
CN554
RELAY551
CARD CABLE

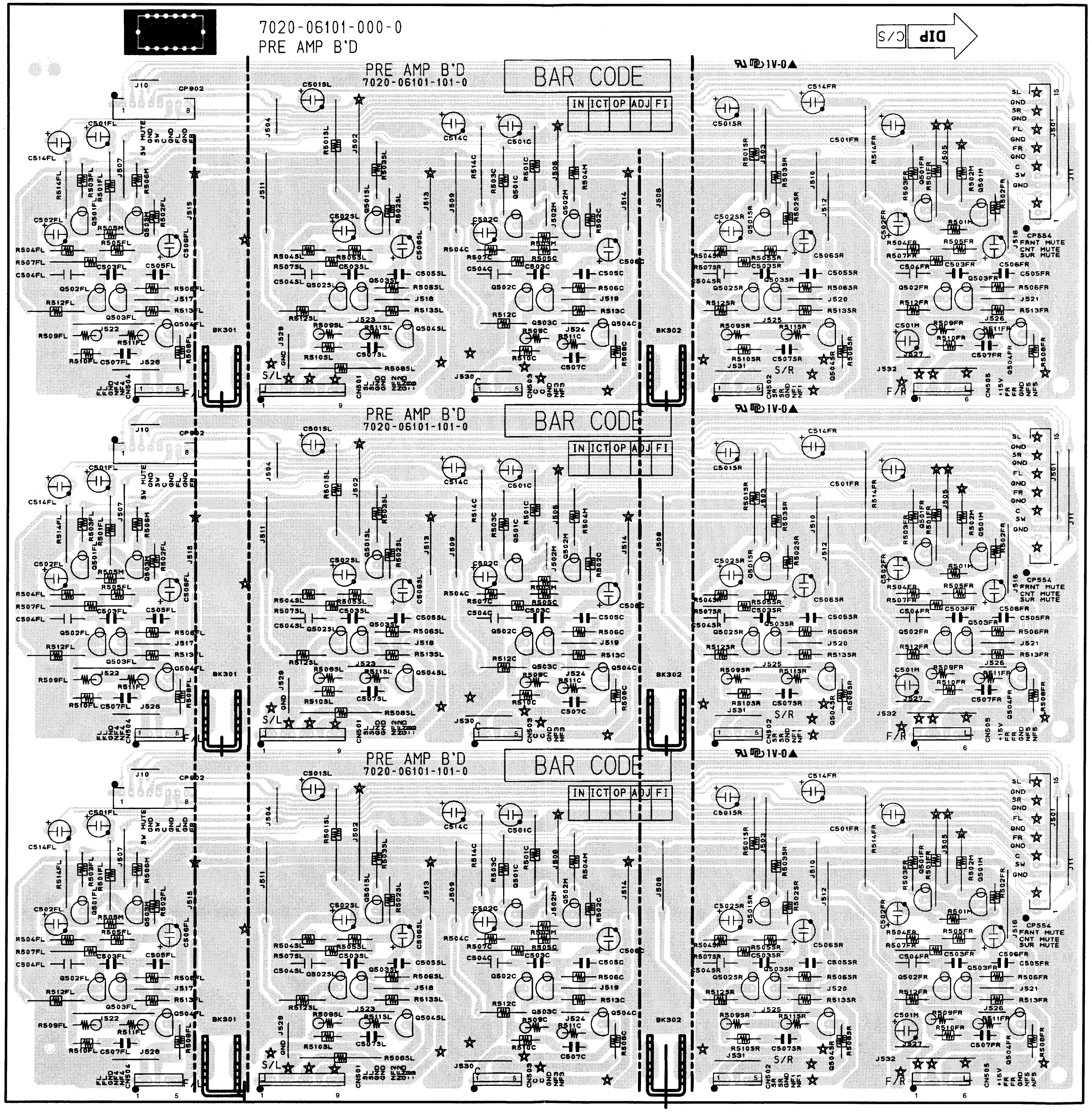
COMPONENT SIDE

CNT P.W.B. Ass'y


1
2
3
4
5
6
7
8
A
B
C
D
E
BU2090F
IC602
MONITOR.(XX)
TV/DBS
TUNER
PHONO
(XX)
VCR/V.AUX
VCR.
DVD/VDP.
CD
S/S
MONITOR OUT
DVD/VDP
TV/DBS
VCR1
V.AUX/VCR2
VCR1 OUT
V-CUT SPEC 176m/m
OUTLET B'D
E2 ONLY

FOIL SIDE

PRE-AMP P.W.B. Ass'y


1
2
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4
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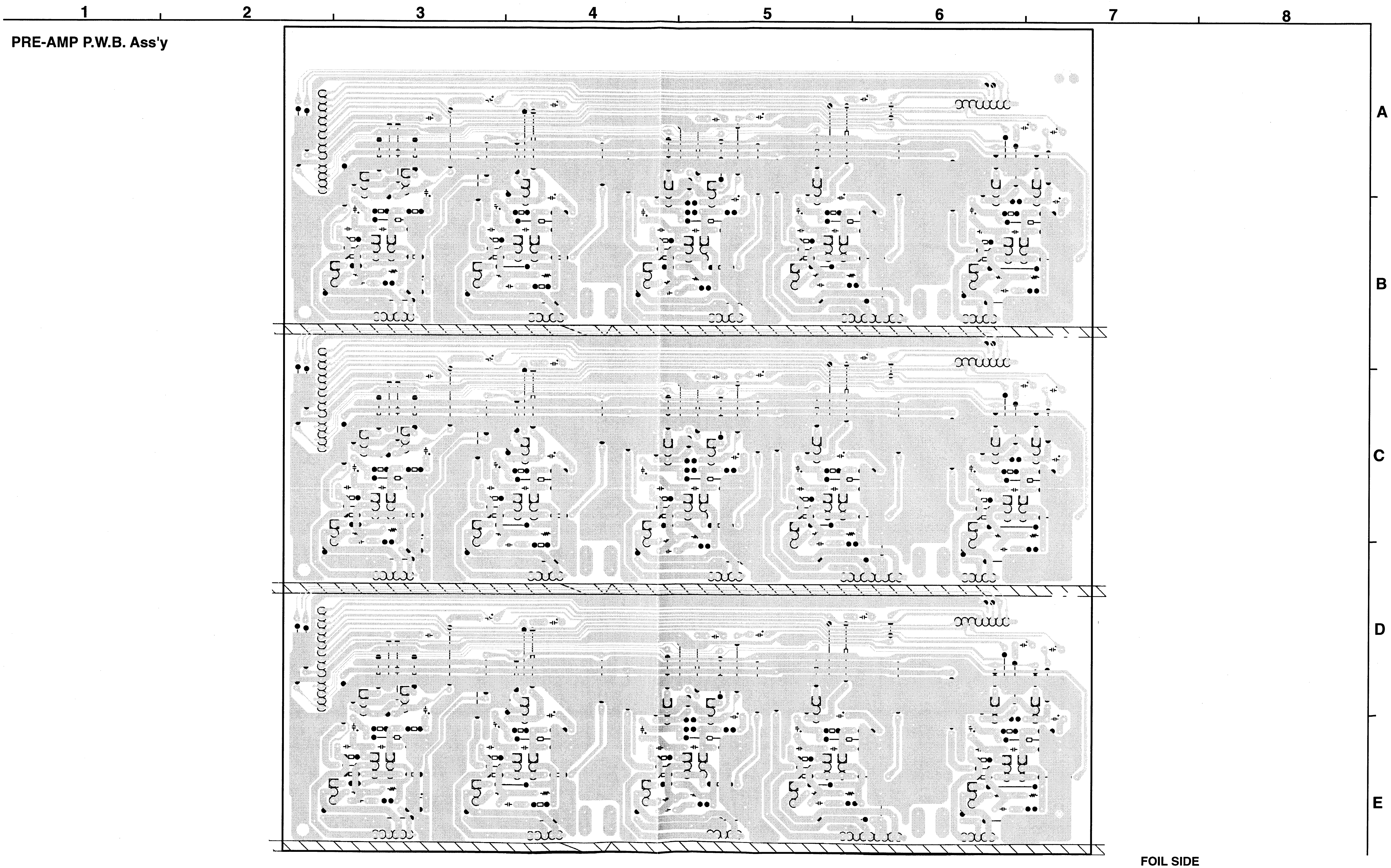
6
7
8
A
B
C
D
E
7020-06101-000-0
PRE AMP B'D
C/S
DIP
PRE AMP B'D
7020-06101-101-0
BAR CODE
IN
ICT
OP
ADJ
FI
1V-0▲
BK301
BK302
S/L
S/R
F/R
CN504
CN501
CN502
CN503
CN505
CP554
FRNT MUTE
CNT MUTE
SUR MUTE

COMPONENT SIDE

PRE-AMP P.W.B. Ass'y


1
2
3
4
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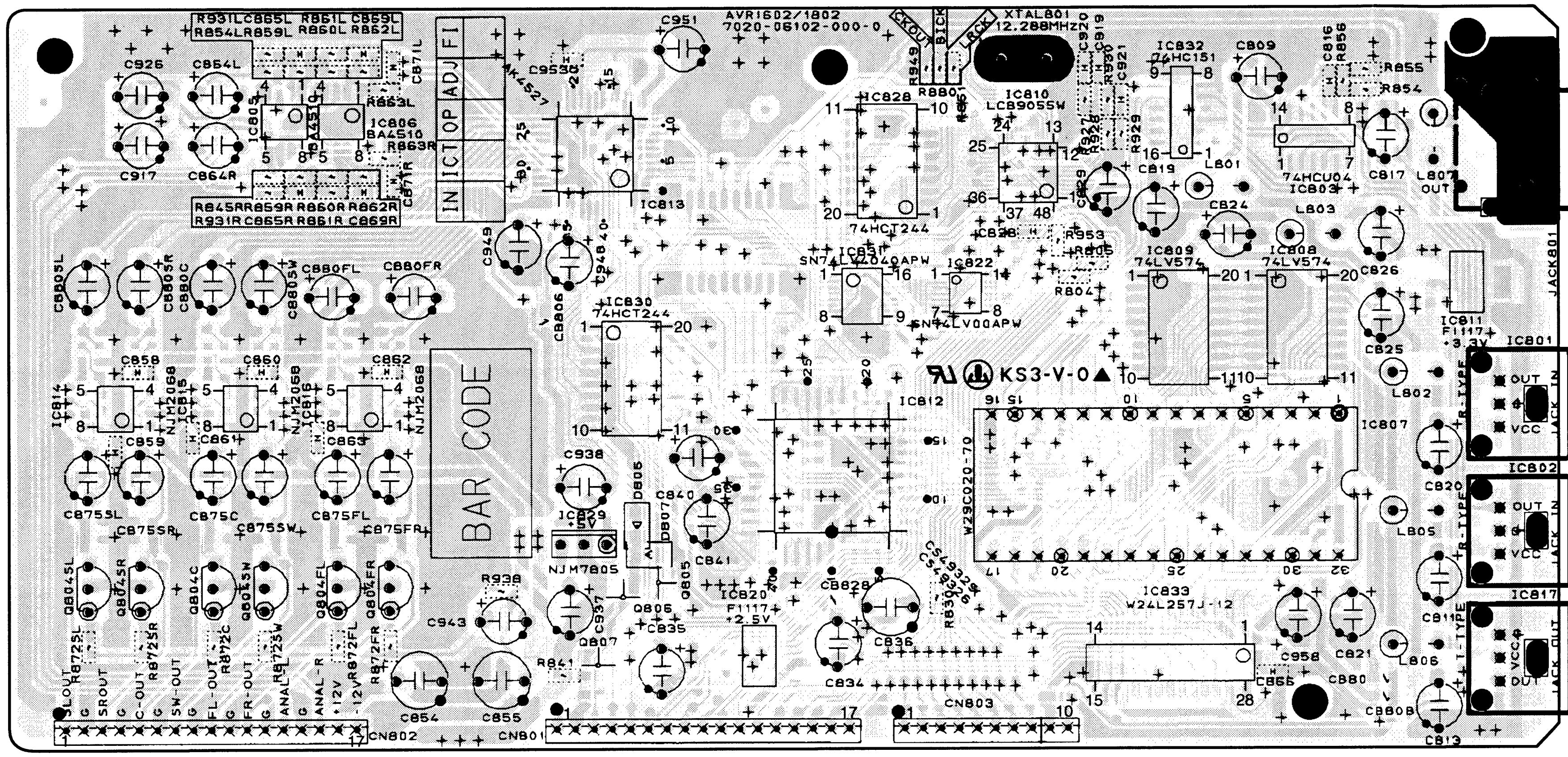
7
8
A
B
C
D
E

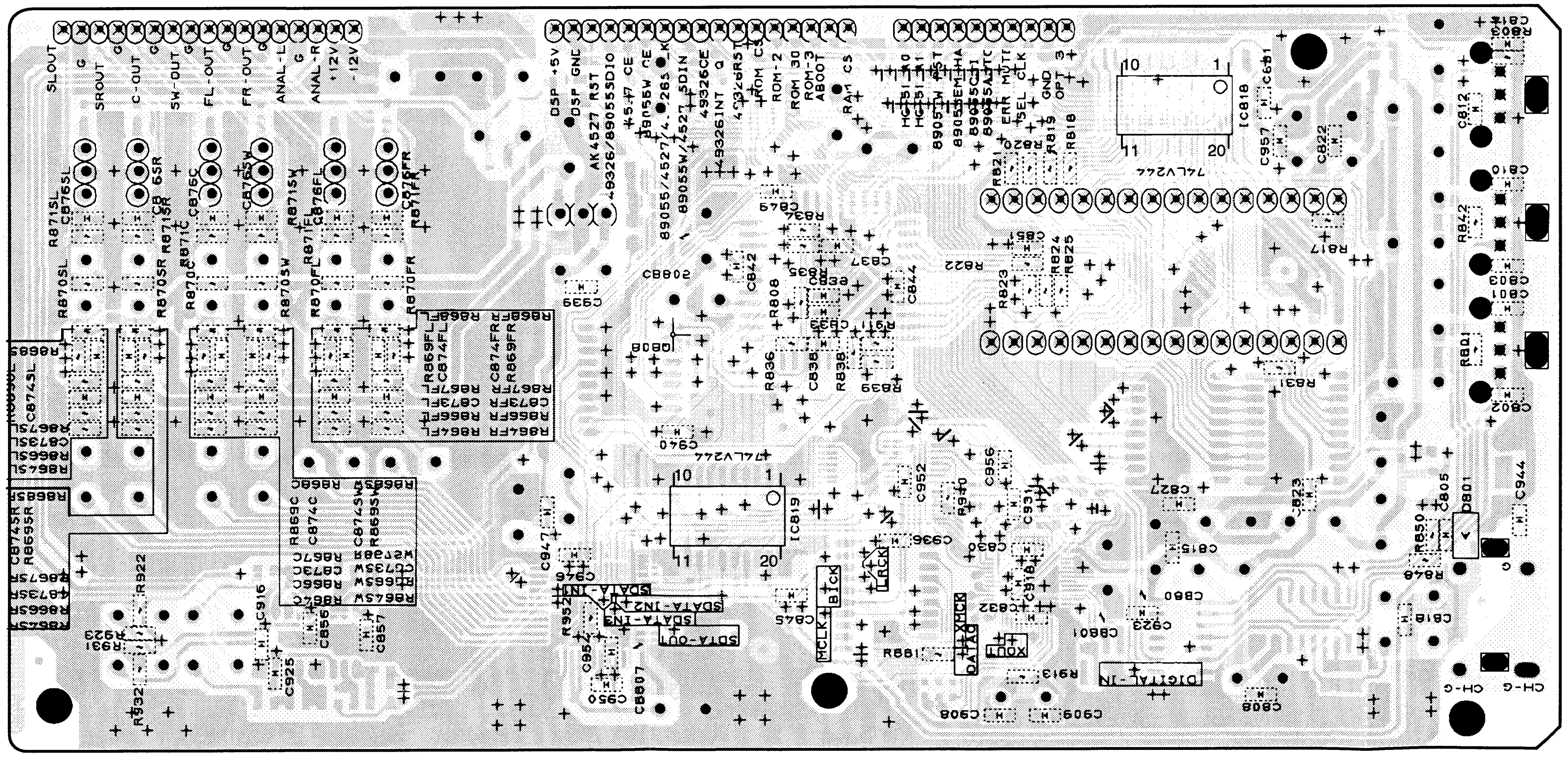
FOIL SIDE

1 2 3 4 5 6 7 8

DSP P.W.B. Ass'y


A
B
C
AVR1602/1802
7020-06102-000-0
XTAL801
12.288MHZ
IC810
LC89055W
IC806
BA4510
IC813
IC830
74HCT244
IC828
74HCT244
IC809
74LV574
IC808
74LV574
IC812
IC807
W29C020-70
IC833
W24L257J-12
IC820
F1117
+2.5V
IC811
F1117
+3.3V
IC832
74HC151
74HCU04
IC803
IC801
IC802
IC817
COAXIAL
JACK801
OPTICAL1
OPTICAL2
OPTICAL OUT
BAR CODE
NJM7805
CN802
CN801
CN803
KS3-V-0

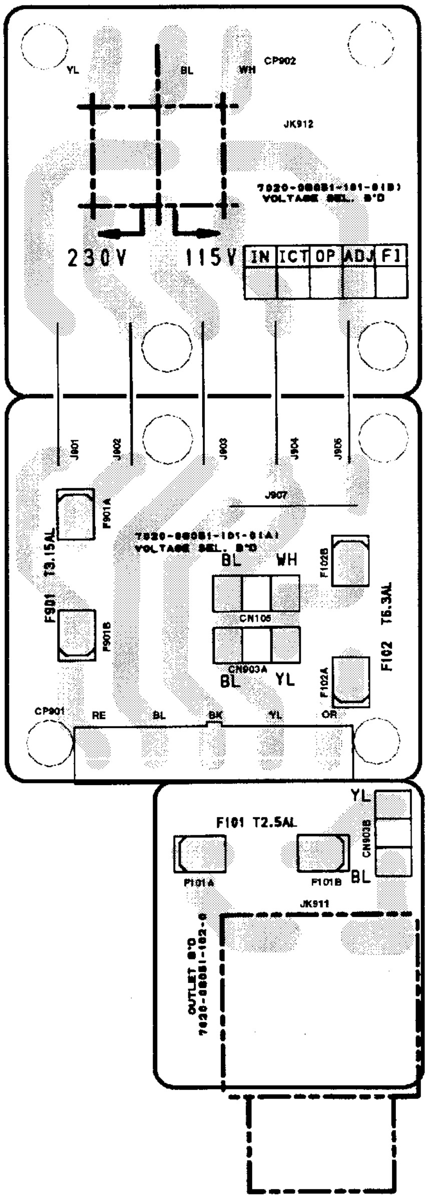
COMPONENT SIDE


D
E
IC818
74LV244
IC819
74LV244
SDATA-OUT
SDATA-IN2
SDATA-IN3
DIGITAL-IN
MCLK
BICK
LRCK
XOUT
CH-G

FOIL SIDE

1 2 3 4

VOLTAGE P.W.B. Ass'y


A
B
C
D
E
YL
BL
WH
CP902
JK912
7920-08081-101-0(B)
VOLTAGE SEL. B'D
230V
115V
IN
ICT
OP
ADJ
F1
J901
J902
J903
J904
J905
J907
F901A
7920-08081-101-0(A)
VOLTAGE SEL. B'D
BL
WH
F102B
F901 T3.15AL
CN105
T6.3AL
F102
F901B
CN903A
BL
YL
F102A
CP901
RE
BL
BK
YL
OR
YL
F101 T2.5AL
CN903B
F101A
F101B
BL
JK911
OUTLET B'D
7920-08081-102-0

COMPONENT SIDE

NOTE FOR PARTS LIST

- Part indicated with the mark "◉" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING:

Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

● Resistors

Ex.:	RN	14K	2E	182	G	FR
	Type	Shape and performance	Power	Resistance	Allowable error	Others

RD : Carbon	2B : 1/8W	F : ±1%	P : Pulse-resistant type
RC : Composition	2E : 1/4W	G : ±2%	NL : Low noise type
RS : Metal oxide film	2H : 1/2W	J : ±5%	NB : Non-burning type
RW : Winding	3A : 1W	K : ±10%	FR : Fuse-resistor
RN : Metal film	3D : 2W	M : ±20%	F : Lead wire forming
RK : Metal mixture	3F : 3W		
	3H : 5W		

*** Resistance**

1 8 2 ⇒ 1800 ohm = 1.8 kohm
Indicates number of zeros after effective number.
2-digit effective number.

- Units: ohm

1 R 2 ⇒ 1.2 ohm
1-digit effective number.
2-digit effective number, decimal point indicated by R.

- Units: ohm

● Capacitors

Ex.:	CE	04W	1H	2R2	M	BP
	Type	Shape and performance	Dielectric strength	Capacity	Allowable error	Others

CE : Aluminum foil electrolytic	0J : 6.3V	F : ±1%	HS : High stability type
CA : Aluminum solid electrolytic	1A : 10V	G : ±2%	BP : Non-polar type
CS : Tantalum electrolytic	1C : 16V	J : ±5%	HR : Ripple-resistant type
CQ : Film	1E : 25V	K : ±10%	DL : For change and discharge
CK : Ceramic	1V : 35V	M : ±20%	HF : For assuring high requency
CC : Ceramic	1H : 50V	Z : +80%	U : UL part
CP : Oil	2A : 100V	−20%	C : CSA part
CM : Mica	2B : 125V	P : +100%	W : UL-CSA type
CF : Metallized	2C : 160V	−0%	F : Lead wire forming
CH : Metallized	2D : 200V	C : ±0.25pF	
	2E : 250V	D : ±0.5pF	
	2H : 500V	= : Others	
	2J : 630V		

*** Capacity (electrolyte only)**

2 2 2 ⇒ 2200µF
Indicates number of zeros after effective number.
2-digit effective number.

- Units: µF.

2 R 2 ⇒ 2.2µF
1-digit effective number.
2-digit effective number, decimal point indicated by R.

- Units: µF.

*** Capacity (except electrolyte)**

2 2 2 ⇒ 2200pF=0.0022µF
(More than 2)—Indicates number of zeros after effective number.
2-digit effective number.

- Units: pF.

2 2 1 ⇒ 220pF
(0 or 1)—— Indicates number of zeros after effective number.
2-digit effective number.

- Units: pF.

- When the dielectric strength is indicated in AC, "AC" is included after the dieelectric strength value.

PARTS LIST OF P.W.B. UNIT

MAIN P.W.B. ASS'Y

Note: The symbols in the column "Remarks" indicate the following destinations.
E3: U.S.A. model, Canada model E1C: China model
EU: U.S.A. model (AVR-882) E1H: Hong Kong model
E2: Europe model E1T: Taiwan R.O.C. model
E1: Asia model

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC101	963 0057 903	IC KIA7815AP	
IC102	963 0044 806	IC NJM7915FA	
IC103	960 0196 001	IC NJM7805FA (S)	
IC104	963 0057 709	IC KIA7805AP	
IC105	960 0195 808	IC protector ICP-N15	
IC701	963 0083 207	IC TC9274N-011	
IC702~704	960 0174 502	IC NJM2068DD	
Q104C	960 0196 506	Transistor KSC1845F	
Q104FL,FR	960 0196 506	Transistor KSC1845F	
Q104SL,SR	960 0196 506	Transistor KSC1845F	
Q111~115	960 0196 904	Transistor DTC114YS (NPN)	
Q116	960 0196 409	Transistor 2SC1740SR	
Q117	960 0196 904	Transistor DTC114YS (NPN)	
Q151	960 0196 409	Transistor 2SC1740SR	
Q171~177	960 0005 202	Transistor KTC3198 (Y)	
Q171A~C	960 0196 302	Transistor KTA1268BL	
Q178	960 0005 105	Transistor KTA1266Y	
Q179	960 0189 005	Transistor KSA916Y	
Q180,181	960 0196 302	Transistor KTA1268BL	
D101~105	963 0020 309	Diode 1SS133T	
D121~126	963 0020 309	Diode 1SS133T	
D131A,B	960 0197 107	Diode KBPC604	
D132	963 0020 309	Diode 1SS133T	
D133,134	963 0046 202	Zener diode MTZJ18B	
D135	963 0020 309	Diode 1SS133T	
D136	963 0058 504	Zener diode MTZJ11B	
D137	963 0020 309	Diode 1SS133T	
D138	963 0058 407	Diode IN4007	
D141~146	963 0058 407	Diode IN4007	
D148	963 0020 309	Diode 1SS133T	
D149,150	963 0058 407	Diode IN4007	
D151	963 0020 309	Diode 1SS133T	
D152,153	963 0058 407	Diode IN4007	
D154	963 0047 405	Zener diode MTZJ7.5B	
D157	960 0014 905	Zener diode MTZJ20B	
D158~160	963 0020 309	Diode 1SS133T	
D251~256	960 0197 000	Diode KDS160	
RESISTORS GROUP			
R104C	244 2052 957	Metal oxide 5.6kohm 1W	
R104FL,FR	244 2052 957	Metal oxide 5.6kohm 1W	
R104SL,SR	244 2052 957	Metal oxide 5.6kohm 1W	
R105C	244 2052 957	Metal oxide 5.6kohm 1W	
R105FL,FR	244 2052 957	Metal oxide 5.6kohm 1W	
R105SL,SR	244 2052 957	Metal oxide 5.6kohm 1W	
R106C	963 9003 068	Metal film 4.7 ohm 1/4W (NB)	
R106FL,FR	963 9003 068	Metal film 4.7 ohm 1/4W (NB)	
R106SL,SR	963 9003 068	Metal film 4.7 ohm 1/4W (NB)	
R107C	963 9003 068	Metal film 4.7 ohm 1/4W (NB)	
R107FL,FR	963 9003 068	Metal film 4.7 ohm 1/4W (NB)	
R107SL,SR	963 9003 068	Metal film 4.7 ohm 1/4W (NB)	
R108C	244 2043 982	Metal oxide 0.22ohm 1W	
R108FL,FR	244 2043 982	Metal oxide 0.22ohm 1W	
R108SL,SR	244 2043 982	Metal oxide 0.22ohm 1W	
R109C	244 2043 982	Metal oxide 0.22ohm 1W	
R109FL,FR	244 2043 982	Metal oxide 0.22ohm 1W	
R109SL,SR	244 2043 982	Metal oxide 0.22ohm 1W	
R110C	244 2043 982	Metal oxide 0.22ohm 1W	
R110FL,FR	244 2043 982	Metal oxide 0.22ohm 1W	
R110SL,SR	244 2043 982	Metal oxide 0.22ohm 1W	
R111C	244 2043 982	Metal oxide 0.22ohm 1W	
R111FL,FR	244 2043 982	Metal oxide 0.22ohm 1W	
R111SL,SR	244 2043 982	Metal oxide 0.22ohm 1W	
R118C	244 2043 937	Metal oxide 10 ohm 1W	
R118FL,FR	244 2043 937	Metal oxide 10 ohm 1W	
R118SL,SR	244 2043 937	Metal oxide 10 ohm 1W	
R119C	244 2043 937	Metal oxide 10 ohm 1W	
R119FL,FR	244 2043 937	Metal oxide 10 ohm 1W	
R119SL,SR	244 2043 937	Metal oxide 10 ohm 1W	
R135,136	963 0045 203	Winding 0.1 ohm 5W	
R141,142	244 2043 982	Metal oxide 0.22 ohm 1W	
R148,149	244 2043 982	Metal oxide 0.22 ohm 1W	
R151	963 9003 343	Metal film 68ohm 1/4W	
R154	963 0043 108	Metal film 2.2 Mohm 1/2W	
R179	963 9003 055	Metal film 47 kohm 1/4W (NB)	
R181	963 9003 068	Metal film 4.7 ohm 1/4W (NB)	
R184	244 2043 937	Metal oxide 10 ohm 1W	
R185	963 9003 039	Metal film 1 ohm 1/4W	
R700L,R	963 9003 372	Carbon chip 0 ohm 1/16W	
R701L,R	963 9004 290	Carbon chip 390 ohm 1/16W	
R702L,R	963 9004 339	Carbon chip 470 ohm 1/16W	
R703L,R	963 9004 339	Carbon chip 470 ohm 1/16W	
R704L,R	963 9004 339	Carbon chip 470 ohm 1/16W	
R705L,R	963 9004 339	Carbon chip 470 ohm 1/16W	
R706L,R	963 9004 339	Carbon chip 470 ohm 1/16W	
R707L,R	963 9004 339	Carbon chip 470 ohm 1/16W	
R708L,R	963 9004 339	Carbon chip 470 ohm 1/16W	
R709L,R	963 9004 452	Carbon chip 68 kohm 1/16W	
R710L,R	963 9004 245	Carbon chip 2.2 Mohm 1/16W	
R711L,R	963 9004 245	Carbon chip 2.2 Mohm 1/16W	
R712L,R	963 9004 245	Carbon chip 2.2 Mohm 1/16W	
R713L,R	963 9004 245	Carbon chip 2.2 Mohm 1/16W	
R714L,R	963 9004 245	Carbon chip 2.2 Mohm 1/16W	
R715L,R	963 9004 245	Carbon chip 2.2 Mohm 1/16W	
R716L,R	963 9004 245	Carbon chip 2.2 Mohm 1/16W	
R717L,R	963 9004 164	Carbon chip 150 kohm 1/16W	
R718L,R	963 9004 326	Carbon chip 47 ohm 1/10W	

Ref. No.	Part No.	Part Name	Remarks
R719L,R	963 9004 258	Carbon chip 240 ohm 1/10W	
R720L,R	963 9004 148	Carbon chip 130 kohm 1/16W	
R721L,R	963 9004 106	Carbon chip 11 kohm 1/10W	
R722L,R	963 9003 385	Carbon chip 100 ohm 1/16W	
R725L,R	963 9003 385	Carbon chip 100 ohm 1/16W	
R726L,R	963 9004 083	Carbon chip 100 kohm 1/16W	
R728L,R	963 9004 300	Carbon chip 39 kohm 1/16W	
R729L,R	963 9003 385	Carbon chip 100 ohm 1/16W	
R730L,R	963 9004 083	Carbon chip 100 kohm 1/16W	
R731L,R	963 9004 300	Carbon chip 39 kohm 1/16W	
R732L,R	963 9004 300	Carbon chip 39 kohm 1/16W	
R737L,R	963 9004 193	Carbon chip 22 ohm 1/16W	
R751L,R	963 9004 083	Carbon chip 100 kohm 1/16W	
VR101~105	960 0091 601	Semi fixed resistor 1 kohm	
CAPACITORS GROUP			
C101C		Electrolytic 47μF/50V	
C101FL,FR		Electrolytic 47μF/50V	
C101SL,SR		Electrolytic 47μF/50V	
C102C		Electrolytic 10μF/50V	
C102FL,FR		Electrolytic 10μF/50V	
C102SL,SR		Electrolytic 10μF/50V	
C103C	963 9003 084	Ceramic 100pF/500V	
C103FL,FR	963 9003 084	Ceramic 100pF/500V	
C103SL,SR	963 9003 084	Ceramic 100pF/500V	
C104C	963 9003 084	Ceramic 100pF/500V	
C104FL,FR	963 9003 084	Ceramic 100pF/500V	
C104SL,SR	963 9003 084	Ceramic 100pF/500V	
C105C	960 9003 108	Ceramic 0.022μF/25V	
C105FL,FR	960 9003 108	Ceramic 0.022μF/25V	
C105SL,SR	960 9003 108	Ceramic 0.022μF/25V	
C107C	963 9003 097	Mylar film 0.1μF/250V	
C107FL,FR	963 9003 097	Mylar film 0.1μF/250V	
C107SL,SR	963 9003 097	Mylar film 0.1μF/250V	
C131~135	963 9003 097	Mylar film 0.1μF/250V	
C136,137	963 0087 203	Electrolytic 10000μF/63V	
C138		Electrolytic 1μF/50V	
C141~143	963 0021 900	Mylar film 0.047μF/100V	
C144	960 9007 201	Electrolytic 3300μF/10V	
C145	963 9003 123	Electrolytic 1000μF/35V	
C146		Electrolytic 1μF/50V	
C148		Electrolytic 1μF/50V	
C150~C152	963 0021 900	Mylar film 0.047μF/100V	
C153	963 0021 104	Electrolytic 6800μF/16V	
C154		Electrolytic 47μF/10V	
C155	963 9004 559	Ceramic 0.1μF/50V	
C157		Electrolytic 1μF/50V	
C158	963 9003 136	Electrolytic 1000μF/25V	
C159		Electrolytic 1μF/50V	
C161		Electrolytic 10μF/35V	
C171		Electrolytic 100μF/10V	

Ref. No.	Part No.	Part Name	Remarks	
C171A~C	963 9004 818	Ceramic 0.1μF/50V		
C172,173		Electrolytic 220μF/6.3V		
C174		Electrolytic 10μF/35V		
C175		Electrolytic 4.7μF/50V		
C176,177		Electrolytic 1μF/50V		
C178	963 9003 149	Electrolytic 330μF/63V		
⚠ C181	960 0177 208	Ceramic 0.047μF/250V(AC)		
C182		Electrolytic 10μF/100V		
C251,252	963 9004 698	Ceramic chip 0.01μF/50V		
C709L,R		Electrolytic 10μF/35V		
C710L,R	963 9004 685	Ceramic chip 1000pF/50V		
C711L,R		Electrolytic 220μF/6.3V		
C712L,R	963 9004 779	Mylar film 0.024μF/50V		
C713L,R	960 9008 695	Mylar film 0.0068μF/100V		
C714L,R		Electrolytic 4.7μF/50V		
C715L,R	963 9004 737	Ceramic chip 0.022μF/25V		
C716L,R		Electrolytic 10μF/35V		
C717L,R	963 9004 601	Ceramic chip 220pF/50V		
C718L,R		Electrolytic 47μF/10V		
C719L,R		Electrolytic 1μF/50V		
C720L,R	963 9003 152	Mylar film 0.068μF/100V		
C721L,R	963 9003 152	Mylar film 0.068μF/100V		
C723L,R		Electrolytic 10μF/35V		
C724L,R	963 9004 698	Ceramic chip 0.01μF/50V		
C725,726	963 9004 698	Ceramic chip 0.01μF/50V		
C727,728		Electrolytic 10μF/35V		
OTHER PARTS GROUP				**Q'ty**
CN201	963 0085 506	9P connector socket (TUC-P)		1
CN202	963 0085 603	5P connector socket (TUC-P)		1
CN203	963 0085 700	6P connector socket (TUC-P)		1
CN701	963 0086 602	12P connector socket (TUC-P)		1
CN702	963 0086 709	11P connector socket (TUC-P)		1
CN704	963 0086 505	7P connector socket (TUC-P)		1
CP101	960 0197 505	2P connector base		1
CP102	960 0123 304	2P connector base		1
CP103	960 0128 901	3P connector base		1
CP104	960 0128 804	6P connector base		1
CP106	960 0123 207	3P connector base		1
CP501	963 0086 806	9P connector base (TUC-P)		1
CP502~504	963 0086 903	5P connector base (TUC-P)		4
CP505	963 0087 009	6P connector base (TUC-P)		1
CP553	963 0087 106	20P connector base (TUC-P)		1
CP901	963 0048 909	3P connector base		1
⚠ F101,102	960 0188 705	Fuse 8A	E3	2

Ref. No.	Part No.	Part Name	Remarks	Q'ty
⚠ F101	960 0142 602	Fuse 2.5A	E2	1
⚠ F102	960 0044 709	Fuse 3.15A	E2,E1C	1
⚠ F101A,B	960 0005 804	Fuse clip	E3,E2	2
⚠ F102A,B	960 0005 804	Fuse clip	E3,E2,E1C	2
GND101,102	960 9006 600	Terminal		2
JK103	960 0194 809	2P speaker terminal		1
⚠ JK104	960 0187 803	AC outlet(2P)	E3	1
L101C	963 0049 005	Inductor 0.5μH		1
L101FL,FR	963 0049 005	Inductor 0.5μH		2
L101SL,SR	963 0049 005	Inductor 0.5μH		2
L701L,R	235 9003 002	FTZ CHOKE COIL	E2	2
RLY101~104	960 0181 702	Relay (G5PA-28 24V)		4
RLY105	963 0071 303	Relay (RSB24S 24V)		1
RLY106	960 0181 605	Relay (G5PA-1-8 12V)		1
TP101~105	960 0161 405	3P connector base		5
—	—	Heat sink		1
—	—	Heat sink		1
⚠ —	960 0185 708	Power trans. (Mini)	E3	1
⚠	960 0185 711	Power trans. (Mini)	E2	1
⚠	960 0185 737	Power trans. (Mini)	E1,E1H,E1T	1
⚠	960 0185 724	Power trans. (Mini)	E1C	1
—	963 0018 007	Screw (2S 3×8 ZNY/BH)		3
—	960 0188 608	4P speaker terminal		1
—	963 0074 009	8P speaker terminal		1
—	960 0188 103	2P pin jack		1
—	960 0188 200	4P pin jack		2
—	960 0188 307	6P pin jack		1
—	963 0066 114	5P connector base		1
—	963 0075 600	6P connector base		1
—	963 0068 400	Capacitor cover	E2	1

PROCESSOR P.W.B. ASS'Y

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC201	963 0084 303	IC CXP740096-135Q	
IC202	963 0057 602	IC TDA7330BD	E2
IC203	960 0080 201	IC KIC9164AN	
IC204	963 0043 603	IC KIC9482F	
IC205~210	960 0174 502	IC NJM2068DD	
IC301	960 0180 004	IC LC75721E	
IC302	963 0074 504	IC BU2090F	
IC803	269 0186 002	IC GP1FA502RZ	
RMC301	960 0181 100	IC NJL64H380A	
Q201	269 0054 901	Transistor DTC144EK	
Q202	963 0045 902	Transistor 2SC2412KT	
Q207,208	960 0196 807	Transistor 2SK117Y	
Q209	269 0093 904	Transistor DTA144ES	
Q210	269 0040 902	Transistor DTC144ES	
Q211~213	960 0196 807	Transistor 2SK117Y	
Q214	269 0046 906	Transistor DTA114ES	
Q215	269 0020 906	Transistor DTC114ES	
Q216	269 0046 906	Transistor DTA114ES	
Q300,301	269 0055 900	Transistor DTA144EK	
Q302~304	269 0054 901	Transistor DTC144EK	
Q305	269 0055 900	Transistor DTA144EK	
D201	960 0197 000	Diode KDS160	
D202	963 0058 407	Diode IN4007	
D203	963 0020 309	Diode 1SS133T	
D204,205	960 0197 000	Diode KDS160	
D206	960 0197 000	Diode KDS160	E2
D207	960 0197 000	Diode KDS160	
D210~212	960 0197 000	Diode KDS160	
D213	963 0020 309	Diode 1SS133T	
D214	963 0058 407	Diode IN4007	
D302~304	963 0020 309	Diode 1SS133T	
D305~307	960 0197 000	Diode KDS160	
ZD201	963 0047 502	Zener diode MTZJ3.3B	
ZD301	960 0095 801	Zener diode MTZJ6.8B	
ZD302~305	960 0095 607	Zener diode MTZJ5.6B	
LED301,302	960 0197 204	LED PI5-RD/HL50RDRF4T	
LED304~309	960 0197 204	LED PI5-RD/HL50RDRF4T	
RESISTORS GROUP			
R202	963 9003 398	Carbon chip 1 kohm 1/16W	
R204	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R205	963 9004 070	Carbon chip 10 kohm 1/16W	

Ref. No.	Part No.	Part Name	Remarks
R206	963 9004 232	Carbon chip 220 kohm 1/16W	
R208	963 9003 398	Carbon chip 1 kohm 1/16W	
R209	963 9004 070	Carbon chip 10 kohm 1/16W	
R210FL,FR	963 9004 313	Carbon chip 4.3 kohm 1/16W	
R211	963 9004 070	Carbon chip 10 kohm 1/16W	
R212	963 9003 398	Carbon chip 1 kohm 1/16W	
R213FR	963 9004 151	Carbon chip 15 kohm 1/16W	
R214FL,FR	963 9004 151	Carbon chip 15 kohm 1/16W	
R215FL,FR	963 9003 385	Carbon chip 100 ohm 1/16W	
R216	963 9004 070	Carbon chip 10 kohm 1/16W	E3,E2
R216FL,FR	963 9004 083	Carbon chip 100 kohm 1/16W	
R217	963 9004 151	Carbon chip 15 kohm 1/16W	
R217FL,FR	963 9004 410	Carbon chip 6.2 kohm 1/16W	
R218	963 9004 070	Carbon chip 10 kohm 1/16W	E2,E1,E1C,E1H,E1T
R219,220	963 9004 070	Carbon chip 10 kohm 1/16W	
R223,224	963 9004 070	Carbon chip 10 kohm 1/16W	E2
R220SW	963 9004 481	Carbon chip 8.2 kohm 1/16W	
R221SW	963 9004 287	Carbon chip 3.6 kohm 1/10W	
R222SW	963 9004 481	Carbon chip 8.2 kohm 1/16W	
R223,224	963 9003 372	Carbon chip 0 ohm 1/16W	
R223SW	963 9003 385	Carbon chip 100 ohm 1/16W	
R224SW	963 9004 083	Carbon chip 100 kohm 1/16W	
R225	963 9004 245	Carbon chip 2.2Mohm 1/16W	E2
R229,230	960 9003 807	Metal film 100 ohm 1/4W	
R237	963 9003 398	Carbon chip 1 kohm 1/16W	
R239C	963 9004 083	Carbon chip 100 kohm 1/16W	
R239FL,FR	963 9004 083	Carbon chip 100 kohm 1/16W	
R239SL,SR	963 9004 083	Carbon chip 100 kohm 1/16W	
R239SW	963 9004 083	Carbon chip 100 kohm 1/16W	
R240C	963 9003 385	Carbon chip 100 ohm 1/16W	
R240FL,FR	963 9003 385	Carbon chip 100 ohm 1/16W	
R240SL,SR	963 9003 385	Carbon chip 100 ohm 1/16W	
R240SW	963 9003 385	Carbon chip 100 ohm 1/16W	
R241C	963 9004 083	Carbon chip 100 kohm 1/16W	
R241FL,FR	963 9004 083	Carbon chip 100 kohm 1/16W	
R241SL,SR	963 9004 083	Carbon chip 100 kohm 1/16W	
R241SW	963 9004 083	Carbon chip 100 kohm 1/16W	
R242C	963 9004 478	Carbon chip 7.5 kohm 1/10W	
R242FL,FR	963 9004 478	Carbon chip 7.5 kohm 1/10W	
R242SL,SR	963 9004 478	Carbon chip 7.5 kohm 1/10W	
R242SW	963 9004 449	Carbon chip 6.8 kohm 1/16W	
R243C	963 9004 070	Carbon chip 10 kohm 1/16W	
R243FL,FR	963 9004 070	Carbon chip 10 kohm 1/16W	
R244C	963 9004 135	Carbon chip 1.3 kohm 1/10W	
R244FL,FR	963 9004 135	Carbon chip 1.3 kohm 1/10W	
R244SL,SR	963 9004 135	Carbon chip 1.3 kohm 1/10W	
R244SW	963 9004 407	Carbon chip 620 ohm 1/16W	
R246C	963 9004 083	Carbon chip 100 kohm 1/16W	
R246SL,SR	963 9004 083	Carbon chip 100 kohm 1/16W	
R246SW	963 9004 083	Carbon chip 100 kohm 1/16W	
R247C	963 9004 339	Carbon chip 470 ohm 1/16W	
R247SL,SR	963 9004 339	Carbon chip 470 ohm 1/16W	
R247SW	963 9004 339	Carbon chip 470 ohm 1/16W	
R250	963 9004 368	Carbon chip 470 kohm 1/16W	
R255	963 9004 368	Carbon chip 470 kohm 1/16W	
R261	963 9004 122	Carbon chip 12 kohm 1/16W	
R262	963 9004 070	Carbon chip 10 kohm 1/16W	
R263,264	963 9004 122	Carbon chip 12 kohm 1/16W	
R265~271	963 9004 339	Carbon chip 470 ohm 1/16W	
R336	963 9004 465	Carbon chip 75 ohm 1/16W	
R337	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R338	963 9004 339	Carbon chip 470 ohm 1/16W	
R339	963 9004 119	Carbon chip 1.2 kohm 1/16W	
R340~348	963 9004 436	Carbon chip 680 ohm 1/16W	
R349	963 9004 339	Carbon chip 470 ohm 1/16W	
R349FL~402FL	963 9004 397	Carbon chip 56 kohm 1/16W	
R350,351	963 9004 245	Carbon chip 2.2 Mohm 1/16W	
R407	963 9004 342	Carbon chip 4.7 kohm 1/16W	
CAPACITORS GROUP			
BC201	963 0061 504	Electrolytic 8200µF/5.5V	
C202,203	963 9004 698	Ceramic chip 0.01µF/50V	
C204		Electrolytic 4.7µF/50V	
C206		Electrolytic 47µF/16V	E2
C207	963 9004 546	Ceramic 0.01µF/16V	E2
C208	963 9004 805	Ceramic 270pF/50V	E2
C209		Electrolytic 10µF/35V	E2
C210	963 9004 698	Ceramic chip 0.01µF/50V	E2
C211	963 9004 614	Ceramic chip 27pF/50V	E2
C211SW	963 9004 575	Ceramic chip 100pF/50V	
C212	963 9004 614	Ceramic chip 27pF/50V	E2
C212SW	963 9004 643	Ceramic chip 47pF/50V	
C213-219	963 9004 753	Ceramic chip 0.047µF/50V	
C213FL,FR	963 9004 575	Ceramic chip 100pF/50V	
C218FL,FR	963 9004 627	Ceramic chip 33pF/50V	
C219FL,FR		Electrolytic 10µF/35V	
C219SW,220		Electrolytic 10µF/35V	
C221FL,FR		Electrolytic 4.7µF/50V	
C222SW		Electrolytic 4.7µF/50V	
C223SL,SR		Electrolytic 4.7µF/50V	
C225,226	963 9004 753	Ceramic chip 0.047µF/50V	
C227		Electrolytic 10µF/35V	
C228-C234	963 9004 575	Ceramic chip 100pF/50V	
C230C,231C		Electrolytic 4.7µF/50V	
C231FL,FR		Electrolytic 10µF/35V	
C231SL,SR		Electrolytic 4.7µF/50V	
C231SW		Electrolytic 4.7µF/50V	
C232C	963 9004 669	Ceramic chip 56pF/50V	
C232FL,FR	963 9004 669	Ceramic chip 56pF/50V	
C232SL,SR	963 9004 630	Ceramic chip 39pF/50V	
C232SW	963 9004 669	Ceramic chip 56pF/50V	

Ref. No.	Part No.	Part Name	Remarks
C233C	963 9004 724	Ceramic chip 2200pF/50V	
C233FL,FR	963 9004 724	Ceramic chip 2200pF/50V	
C234FL,FR	963 9004 672	Ceramic chip 680pF/50V	
C235SW	963 9004 575	Ceramic chip 100pF/50V	
C236		Electrolytic 4.7μF/50V	
C237		Electrolytic 0.1μF/50V	
C239	963 9004 753	Ceramic chip 0.047μF/50V	
C240		Electrolytic 1μF/50V	
C241		Electrolytic 10μF/35V	
C242	963 9004 588	Ceramic chip 100pF/50V	
C243,244	963 9004 753	Ceramic chip 0.047μF/50V	
C243C	963 9004 672	Ceramic chip 680pF/50V	
C245	963 9004 575	Ceramic chip 100pF/50V	
C246		Electrolytic 10μF/35V	
C246SW		Electrolytic 4.7μF/50V	
C247	963 9004 575	Ceramic chip 100pF/50V	
C248	963 9004 588	Ceramic chip 1000pF/50V	
C249	960 9003 108	Ceramic 0.022μF/25V	
C250	963 9004 575	Ceramic chip 100pF/50V	
C301-304	963 9004 698	Ceramic chip 0.01μF/50V	
C305-307	963 9004 575	Ceramic chip 100pF/50V	
C309	963 9004 737	Ceramic chip 0.022μF/25V	
C311	963 9004 494	Ceramic 30pF/50V	
C312	963 9004 753	Ceramic chip 0.047μF/50V	
C313	963 9004 504	Ceramic 0.01μF/50V	
C314	963 0021 900	Mylar film 0.047μF/100V	
C315		Electrolytic 1μF/50V	
C316		Electrolytic 10μF/50V	
C317		Electrolytic 47μF/10V	
C318	963 0021 900	Mylar film 0.047μF/100V	
C319		Electrolytic 10μF/35V	
C320		Electrolytic 1μF/50V	
C321	963 0021 900	Mylar film 0.047μF/100V	
C322		Electrolytic 47μF/10V	
C323	963 9004 766	Mylar film 0.1μF/100V	
C324		Electrolytic 1μF/50V	
C325	963 9004 575	Ceramic chip 100pF/50V	
C326		Electrolytic 4.7μF/50V	
C327		Electrolytic 1μF/50V	
C328	963 9004 753	Ceramic chip 0.047μF/50V	
C3010		Electrolytic 47μF/10V	
C3020	963 9004 818	Ceramic 0.1μF/50V	
C3030	963 9004 591	Ceramic chip 22pF/50V	

Ref. No.	Part No.	Part Name	Remarks	Q'ty
OTHER PARTS GROUP				
CB201,202	963 0053 800	BEADS INDUCTOR		2
CN301	960 0197 602	17P FFC connector base		1
CN302	963 0087 300	3P connector cord		1
CP301	960 0197 709	17P FFC connector base		1
CP301	963 0049 102	3P connector base		1
CP401	963 0087 407	16P connector base (TUC-P)		1
CP551	963 0087 504	19P connector base (TUC-P)		1
CP552	963 0087 601	18P connector base (TUC-P)		1
CP601,602	963 0086 903	5P connector base (TUC-P)		2
CP603	963 0087 009	6P connector base (TUC-P)		1
CP605	963 0086 806	9P connector base (TUC-P)		1
CP701	963 0087 708	12P connector base (TUC-P)		1
CP702	963 0087 805	11P connector base (TUC-P)		1
CP801,802	963 0087 902	17P connector base (TUC-P)		2
CP803	963 0088 008	10P connector base (TUC-P)		1
CP901	963 0060 806	11P connector base		1
GP301	963 0088 202	1P contact Ass'y		1
GP303	963 0088 202	1P contact Ass'y		1
J324,325	963 9003 369	Carbon chip 0 ohm 1/8W		2
J326	963 9003 372	Carbon chip 0 ohm 1/16W		1
J340	963 9003 369	Carbon chip 0 ohm 1/8W		1
J342,343	963 9003 369	Carbon chip 0 ohm 1/8W		2
JK301	963 0067 508	3P pin jack		1
JP301	963 9003 369	Carbon chip 0 ohm 1/8W		1
L301	960 0010 307	Inductor 10μH		1
L302	960 0128 008	Inductor 100μH		1
L3010	963 0050 803	Inductor 4.7μH		1
SW301~322	963 0045 708	Tact switch		22
VEC301,302	960 0181 207	Rotary encoder		2
X201	960 0181 003	Resonator CST12.0MTW-TF01		1
X202	960 0091 805	Crystal 4.332MHz	E2	1
—	960 0184 408	FLT holder		1
—	960 0180 509	FLT (16-ST-42GNK)		1

CNT P.W.B. ASS'Y

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC401	963 0043 700	IC LC72131	
IC402	963 0043 904	IC LA1266	
IC403	963 0044 000	IC LA3401	
IC551	960 0174 502	IC NJM2068DD	
IC552	963 0043 506	IC TC9184AP	
IC601	963 0083 304	IC BA7626	
IC602	963 0074 504	IC BU2090F	
IC651,652	963 0083 304	IC BA7626	
IC663	963 0057 806	IC KIA78R05PI	
Q401	960 0189 102	Transistor KTC3880S-O	
Q402~404	269 0083 901	Transistor DTA114EK	
Q405,406	960 0196 603	Transistor KTC2874B	
Q407	963 0024 208	Transistor DTC114YK	
Q408	269 0083 901	Transistor DTA114EK	
Q409	960 0189 102	Transistor KTC3880S-O	E2
Q551	960 0196 700	Transistor KTC3200BL	
Q551SW,552SW	960 0196 603	Transistor KTC2874B	
Q552	960 0196 302	Transistor KTA1268BL	
Q553~555	269 0046 906	Transistor DTA114ES	
Q553T	960 0196 904	Transistor DTC114YS (NPN)	
Q601~603	960 0005 105	Transistor KTA1266Y	
Q604~606	963 0075 406	Transistor DTC114TS	
Q651~656	960 0005 105	Transistor KTA1266Y	
D403	960 0197 000	Diode KDS160	
D404~406	963 0020 309	Diode 1SS133T	
D551,551T	963 0020 309	Diode 1SS133T	
D552-561	963 0020 309	Diode 1SS133T	
D562,563	963 0058 407	Diode IN4007	
D564	960 0095 500	Zener diode MTZJ5.1B	
D565	963 0020 309	Diode 1SS133T	
D601~606	960 0197 000	Diode KDS160	
D651~D656	960 0197 000	Diode KDS160	
D652T	963 0061 601	Electrolytic 3300µF/10V	
D657,658	963 0058 407	Diode IN4007	
D901,902	960 0197 000	Diode KDS160	
ZD401	960 0095 500	Zener diode MTZJ5.1B	
RESISTORS GROUP			
R401	963 9004 821	Carbon chip 10 ohm 1/16W	
R403	963 9004 339	Carbon chip 470 ohm 1/16W	
R404	963 9004 083	Carbon chip 100 kohm 1/16W	
R405	960 9003 807	Metal film 100 ohm 1/4W	
R406	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R407	963 9004 407	Carbon chip 620 ohm 1/16W	E3,E1,E1C,E1H,E1T
R407	963 9004 436	Carbon chip 680 ohm 1/16W	E2
R408	963 9004 119	Carbon chip 1.2 kohm 1/16W	E3,E1,E1C,E1H,E1T
R408	963 9004 436	Carbon chip 680 ohm 1/16W	E2
R409	963 9004 339	Carbon chip 470 ohm 1/16W	
R411	963 9004 452	Carbon chip 68 kohm 1/16W	
R412	963 9004 834	Carbon chip 5.6 kohm 1/16W	
R413	960 9006 503	Metal film 220ohm 1/4W	
R414	963 9004 216	Carbon chip 2.2 kohm 1/16W	
R415	963 9003 398	Carbon chip 1 kohm 1/16W	
R416	241 2379 945	Metal film 680 ohm 1/4W	
R417	963 9003 398	Carbon chip 1 kohm 1/16W	
R418	963 9004 274	Carbon chip 33 kohm 1/16W	
R420	963 9003 372	Carbon chip 0 ohm 1/16W	
R426,427	963 9004 070	Carbon chip 10 kohm 1/16W	
R428	963 9004 847	Carbon chip 3.3 kohm 1/16W	E3
R428	963 9004 070	Carbon chip 10 kohm 1/16W	E2
R428	963 9004 449	Carbon chip6.8 kohm 1/16W	E1,E1C,E1H,E1T
R429	963 9004 850	Carbon chip 82 ohm 1/16W	
R430	960 9003 807	Metal film 100 ohm 1/4W	
R431	963 9004 371	Carbon chip 5.1 kohm 1/16W	
R432	963 9004 070	Carbon chip 10 kohm 1/16W	
R434	960 9003 807	Metal film 100 ohm 1/4W	
R435	963 9004 847	Carbon chip 3.3 kohm 1/16W	
R437	963 9004 083	Carbon chip 100 kohm 1/16W	
R438,439	963 9004 083	Carbon chip 100 kohm 1/16W	E3,E2,E1,E1C,E1H,E1T
R438,439	963 9004 164	Carbon chip 150 kohm 1/16W	E2
R440,441	963 9004 863	Carbon chip 120 kohm 1/16W	E3,E2,E1,E1C,E1H,E1T
R440,441	963 9004 232	Carbon chip 220 kohm 1/16W	E2
R442,443	963 9004 847	Carbon chip 3.3 kohm 1/16W	E3,E2,E1,E1C,E1H,E1T
R442,443	963 9004 216	Carbon chip 2.2 kohm 1/16W	E2
R444,445	963 9004 481	Carbon chip 8.2 kohm 1/16W	E3,E2,E1,E1C,E1H,E1T
R444,445	963 9004 847	Carbon chip 3.3 kohm 1/16W	E2
R448	963 9004 216	Carbon chip 2.2 kohm 1/16W	
R449	963 9004 216	Carbon chip 2.2 kohm 1/16W	E2
R450	963 9003 398	Carbon chip 1 kohm 1/16W	E2
R455	963 9004 876	Carbon chip 330 ohm 1/16W	
R456	963 9003 385	Carbon chip 100 ohm 1/16W	
R458,459	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R460,461	963 9004 245	Carbon chip 2.2 Mohm 1/16W	
R462~465	963 9004 339	Carbon chip 470 ohm 1/16W	
R467,468	963 9004 245	Carbon chip 2.2 Mohm 1/16W	
R470	963 9003 398	Carbon chip 1 kohm 1/16W	
R471VT	963 9004 203	Carbon chip 220 ohm 1/16W	
R474	963 9004 889	Carbon chip 180 ohm 1/16W	E3,E2
R475	963 9004 122	Carbon chip 12 kohm 1/16W	
R476	963 9004 397	Carbon chip 56 kohm 1/16W	
R478	963 9004 070	Carbon chip 10 kohm 1/16W	
R479	963 9004 083	Carbon chip 100 kohm 1/16W	

Ref. No.	Part No.	Part Name	Remarks
R551SW,552SW	963 9004 339	Carbon chip 470 ohm 1/16W	
R553FL,FR	963 9004 083	Carbon chip 100 kohm 1/16W	
R553SW	963 9004 229	Carbon chip 22 kohm 1/16W	
R553T	963 9003 398	Carbon chip 1 kohm 1/16W	
R554SW	963 9004 070	Carbon chip 10 kohm 1/16W	
R554T	244 2052 928	Metal film 47 ohm 1W	
R558FL,FR	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R559	244 2055 996	Metal film 1.2 kohm 1W	
R559FL,FR	963 9004 229	Carbon chip 22 kohm 1/16W	
R560FL,FR	963 9004 384	Carbon chip 510 kohm 1/16W	
R561FL,FR	963 9004 274	Carbon chip 33 kohm 1/16W	
R563FL,FR	963 9004 290	Carbon chip 390 ohm 1/16W	
R564FL,FR	963 9004 339	Carbon chip 470 ohm 1/16W	
R565	244 2055 996	Metal film 1.2 kohm 1W	
R567FL,FR	963 9004 368	Carbon chip 470 kohm 1/16W	
R570	244 2055 996	Metal film 1.2 kohm 1W	
R629	963 9004 070	Carbon chip 10 kohm 1/16W	
R633-636	963 9004 070	Carbon chip 10 kohm 1/16W	
R638,639	963 9004 070	Carbon chip 10 kohm 1/16W	
R651-658	963 9004 465	Carbon chip 75 ohm 1/16W	
R651T,652T	244 2043 982	Metal oxide 0.22 ohm 1W	
R659	963 9004 423	Carbon chip 68 ohm 1/10W	
R660	963 9004 070	Carbon chip 10 kohm 1/16W	
R662	963 9004 423	Carbon chip 68 ohm 1/10W	
R663	963 9004 070	Carbon chip 10 kohm 1/16W	
R665	963 9004 423	Carbon chip 68 ohm 1/10W	
R666	963 9004 070	Carbon chip 10 kohm 1/16W	
R671	963 9004 423	Carbon chip 68 ohm 1/10W	
R672	963 9004 070	Carbon chip 10 kohm 1/16W	
R674	963 9004 423	Carbon chip 68 ohm 1/10W	
R675	963 9004 070	Carbon chip 10 kohm 1/16W	
R677	963 9004 423	Carbon chip 68 ohm 1/10W	
R678	963 9004 070	Carbon chip 10 kohm 1/16W	
R683,684	963 9004 465	Carbon chip 75 ohm 1/16W	
R901,902	963 9004 245	Carbon chip 2.2 Mohm 1/16W	
R903H,904H	960 9009 270	Metal film 470ohm 2W	
R905,906	963 9004 245	Carbon chip 2.2 Mohm 1/16W	
R907,908	963 9003 385	Carbon chip 100 ohm 1/16W	
R909,910	963 9004 245	Carbon chip 2.2 Mohm 1/16W	
R911,912	963 9003 385	Carbon chip 100 ohm 1/16W	
R913,914	963 9004 203	Carbon chip 220 ohm 1/16W	
R916	963 9004 203	Carbon chip 220 ohm 1/16W	
R917~920	963 9004 083	Carbon chip 100 kohm 1/16W	
R923,924	963 9003 385	Carbon chip 100 ohm 1/16W	
VR401	960 0096 606	Semi fixed resistor 20kohm	
VR402	960 0096 402	Semi fixed resistor 100kohm	
VR403	963 0052 005	Semi fixed resistor 200kohm	

Ref. No.	Part No.	Part Name	Remarks
CAPACITORS GROUP			
C401,402	963 9004 685	Ceramic chip 1000pF/50V	
C403	963 9004 737	Ceramic chip 0.022µF/25V	
C404	963 9004 892	Ceramic 2pF/50V	
C405	963 9004 737	Ceramic chip 0.022µF/25V	
C406	963 9004 902	Ceramic chip 18pF/50V	
C408	960 9004 709	Ceramic 6pF/50V	
C409	963 9004 520	Ceramic 100pF/50V	
C410	963 9004 915	Ceramic 470pF/50V	
C411	963 9004 685	Ceramic chip 1000pF/50V	
C412	963 9004 737	Ceramic chip 0.022µF/25V	
C413	963 9004 575	Ceramic chip 100pF/50V	
C414		Electrolytic 2.2µF/50V	
C415		Electrolytic 47µF/16V	
C416		Electrolytic 10µF/35V	
C417		Electrolytic 100µF/16V	
C418	963 9004 698	Ceramic chip 0.01µF/50V	
C419		Electrolytic 10µF/35V	
C420	963 9004 591	Ceramic chip 22pF/50V	
C421	963 9004 928	Ceramic chip 24pF/50V	
C423,424	963 9004 737	Ceramic chip 0.022µF/25V	
C425		Electrolytic 4.7µF/50V	
C426		Electrolytic 3.3µF/50V	
C427		Electrolytic 4.7µF/50V	
C428	963 9004 737	Ceramic chip 0.022µF/25V	
C430	963 0021 900	Mylar film 0.047µF/100V	
C431	963 9004 627	Ceramic chip 33pF/50V	
C432		Electrolytic 47µF/16V	
C433	963 9004 737	Ceramic chip 0.022µF/25V	
C434		Electrolytic 1µF/50V	E3
C434		Electrolytic 0.33µF/50V	E2,E1,E1C,E1H,E1T
C435,436	963 9004 737	Ceramic chip 0.022µF/25V	
C437		Electrolytic 47µF/16V	
C438		Electrolytic 1µF/50V	
C439		Electrolytic 0.22µF/50V	
C440,441		Electrolytic 1µF/50V	
C442		Electrolytic 2.2µF/50V	
C443		Electrolytic 10µF/35V	
C444		Electrolytic 4.7µF/50V	
C445		Electrolytic 10µF/35V	
C446,447	963 9004 940	Ceramic 270pF/50V	E3
C446,447	963 9004 957	Ceramic 330pF/50V	E2
C446,447	963 9004 931	Ceramic 180pF/50V	E1,E1C,E1H,E1T
C448,449	963 9004 960	Ceramic 470pF/50V	
C448,449	963 9004 957	Ceramic 330pF/50V	E1,E1C,E1H,E1T
C450,451		Electrolytic 10µF/35V	
C452		Electrolytic 100µF/16V	
C453	963 9004 614	Ceramic chip 27pF/50V	
C456	963 9004 672	Ceramic chip 680pF/50V	
C457~460	963 9004 575	Ceramic chip 100pF/50V	
C461	963 9004 591	Ceramic chip 22pF/50V	
C462	963 9004 656	Ceramic chip 470pF/50V	E2

Ref. No.	Part No.	Part Name	Remarks
C463	963 9004 782	Mylar film 0.056µF/100V	
C464	963 9004 973	Ceramic 3pF/50V	
C471VT		Electrolytic 1µF/50V	
C472VT	963 9004 753	Ceramic chip 0.047µF/50V	
C551		Electrolytic 2.2µF/50V	
C551M		Electrolytic 100µF/35V	
C551S	963 9004 562	Ceramic 0.047µF/50V	
C551T,552T		Electrolytic 100µF/16V	
C552-554		Electrolytic 0.1µF/50V	
C552FL,FR		Electrolytic 10µF/35V	
C553FL,FR	963 9004 575	Ceramic chip 100pF/50V	
C553T,554T	963 9004 708	Ceramic chip 0.1µF/50V	
C554FL,FR		Electrolytic 10µF/35V	
C555,556	963 9004 546	Ceramic 0.01µF/16V	
C555FL,FR	963 9004 643	Ceramic chip 47pF/50V	
C556FL,FR		Electrolytic 10µF/35V	
C557		Electrolytic 10µF/35V	
C557FL,FR	963 0024 703	Mylar film 0.01µF/100V	
C558FL,FR	963 9004 782	Mylar film 0.056µF/100V	
C559FL,FR	963 9008 640	Mylar film 0.022µF/100V	
C560FL,FR	960 9008 611	Mylar film 0.0033µF/100V	
C561FL,FR	960 9008 695	Mylar film 0.0068µF/100V	
C601~604		Electrolytic 4.7µF/50V	
C605		Electrolytic 470µF/6.3V	
C606,607		Electrolytic 10µF/35V	
C608,609		Electrolytic 470µF/6.3V	
C610		Electrolytic 10µF/35V	
C612		Electrolytic 100µF/16V	
C614	963 9004 753	Ceramic chip 0.047µF/50V	
C651~658		Electrolytic 4.7µF/50V	
C651T	963 0021 900	Mylar film 0.047µF/100V	
C659		Electrolytic 470µF/6.3V	
C660		Electrolytic 10µF/50V	
C661		Electrolytic 470µF/6.3V	
C662		Electrolytic 10µF/50V	
C663		Electrolytic 470µF/6.3V	
C664		Electrolytic 10µF/50V	
C665		Electrolytic 100µF/10V	
C666		Electrolytic 470µF/6.3V	
C667		Electrolytic 10µF/50V	
C668		Electrolytic 470µF/6.3V	
C669		Electrolytic 10µF/50V	
C670		Electrolytic 470µF/6.3V	
C671		Electrolytic 10µF/50V	
C672		Electrolytic 100µF/10V	
C673,674		Electrolytic 1µF/50V	
C676,677	963 9004 753	Ceramic chip 0.047µF/50V	
C680		Electrolytic 1µF/50V	
C681,682	963 9004 520	Ceramic 100pF/50V	

Ref. No.	Part No.	Part Name	Remarks
C901H,902H	963 9004 533	Ceramic 0.001µF/50V	
C903	963 9004 575	Ceramic chip 1000pF/50V	
C903H		Electrolytic 1µF/50V	
C904H	960 9003 108	Ceramic 0.022µF/25V	
C905,906	963 9004 575	Ceramic chip 100pF/50V	
C907~910	963 9004 575	Ceramic chip 100pF/50V	
C911	963 9004 698	Ceramic chip 0.01µF/50V	
C918	963 9004 698	Ceramic chip 0.01µF/50V	
C921,922	963 9004 575	Ceramic chip 100pF/50V	
C924	963 9004 575	Ceramic chip 100pF/50V	

OTHER PARTS GROUP				Q'ty
CF401,402	960 0187 104	Ceramic filter SFE10.7MA8	E3	2
CF401,402	960 0177 509	Ceramic filter SFE10.7MS3GH	E2	2
CF401	960 0187 104	Ceramic filter SFE10.7MA8	E1,E1C,E1H,E1T	1
CF402	960 0177 509	Ceramic filter SFE10.7MS3GH	E1,E1C,E1H,E1T	1
CF403	960 0187 609	Ceramic resonator		1
CN392	963 0086 000	2P connector cord		1
CN401	963 0086 107	16P connector socket (TUC-P)		1
CN506	963 0059 008	8P connector cord		1
CN551	963 0086 204	19P connector socket (TUC-P)		1
CN552	963 0086 301	18P connector socket (TUC-P)		1
CN553	963 0086 408	20P connector socket (TUC-P)		1
CN601	963 0085 603	5P connector socket (TUC-P)		1
CN704	963 0086 505	7P connector socket (TUC-P)		1
CP302	963 0049 908	3P connector base		1
CP392	963 0048 909	3P connector base		1
CP602	963 0085 904	9P connector cord		1
CP603	960 0123 207	3P connector base		1
CP703,704	963 0085 807	7P connector base (TUC-P)		2
FE401	960 0187 706	Front end		1
G401	963 0088 202	1P contact Ass'y		1
G901	963 0088 202	1P contact Ass'y		1
J402	963 9003 369	Carbon chip 0 ohm 1/8W		1
J404	963 9003 369	Carbon chip 0 ohm 1/8W		1
J407	963 9003 369	Carbon chip 0 ohm 1/8W		1
J583,584	963 9003 369	Carbon chip 0 ohm 1/8W		2
J585,586	963 9003 372	Carbon chip 0 ohm 1/16W		2
J587	963 9003 369	Carbon chip 0 ohm 1/8W		1
J655	963 9003 369	Carbon chip 0 ohm 1/8W		1
L401	963 0052 102	Inductor 1µH		1
L402	960 0010 307	Inductor 10µH		1

Ref. No.	Part No.	Part Name	Remarks	Q'ty
L403	963 0056 409	MW IF COIL RBW07VB-K5025 BLK		1
RELAY551	963 0083 100	Relay (RSB12S DC12V)		1
SW391-399	963 0045 708	Tact switch		9
SW401	963 0056 700	SW,SLIDE		1
SW901	960 0176 209	Push switch	E3	1
SW901	963 0056 603	Push switch	E2,E1,E1C,E1H,E1T	1
T401	960 0186 600	MW IF COIL PCFMAF-270		1
T402	960 0007 349	FM DET TRANS		1
T403	960 0007 352	FM DET TRANS		1
T404,405	960 0071 207	MPX filter	E2	2
T406	960 0037 607	Antibirdie filter	E2	1
X401	960 0187 405	Crystal 7.2 MHz		1
X402	963 0043 302	Resonator CSB456F11		1
—	960 0184 000	Screw bracket		2
—	963 0054 003	Shield tuner pack		1
—	—	Plate		1
—	963 0052 403	3P antenna terminal		1
—	960 0188 307	6P pin jack		1
—	963 0061 708	Plate		1
—	963 0057 000	1P pin jack		1
—	960 0188 200	4P pin jack		1
—	960 0188 404	3P pin jack		2
—	—	Heat sink		1
—	963 0018 007	Screw (2S 3×8 ZNY/BH)		1
—	960 0181 304	3P S terminal		1
—	960 0181 401	4P S terminal		2
—	960 0188 200	4P pin jack		1
—	960 0187 502	Head phone jack (D6.5)		1
—	—	Wire clamp		2

PRE-AMP P.W.B. ASS'Y

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
Q501C	960 0196 603	Transistor KTC2874B	
Q501FL,FR	960 0196 603	Transistor KTC2874B	
Q501M	960 0196 603	Transistor KTC2874B	
Q501SL,SR	960 0196 603	Transistor KTC2874B	
Q502C	960 0196 205	Transistor KSA992F	
Q502FL,FR	960 0196 205	Transistor KSA992F	
Q502M,503M	960 0196 603	Transistor KTC2874B	
Q502SL,SR	960 0196 205	Transistor KSA992F	
Q503C	960 0196 205	Transistor KSA992F	
Q503FL,FR	960 0196 205	Transistor KSA992F	
Q503SL,SR	960 0196 205	Transistor KSA992F	
Q504C	960 0196 506	Transistor KSC1845F	
Q504FL,FR	960 0196 506	Transistor KSC1845F	
Q504SL,SR	960 0196 506	Transistor KSC1845F	
RESISTORS GROUP			
R509C	960 9005 902	Metal film 1.2 kohm 1/4W	
R509FL,FR	960 9005 902	Metal film 1.2 kohm 1/4W	
R509SL,SR	960 9005 902	Metal film 1.2 kohm 1/4W	
R511C	960 9004 301	Metal film 47 ohm 1/4W	
R511FL,FR	960 9004 301	Metal film 47 ohm 1/4W	
R511SL,SR	960 9004 301	Metal film 47 ohm 1/4W	
CAPACITORS GROUP			
C501C		Electrolytic 22μF/16V	
C501FL,FR		Electrolytic 22μF/16V	
C501M		Electrolytic 10μF/35V	
C501SL,SR		Electrolytic 22μF/16V	
C502C		Electrolytic 10μF/35V	
C502FL,FR		Electrolytic 10μF/35V	
C502SL,SR		Electrolytic 10μF/35V	
C503C	963 9003 165	Ceramic 220pF/500V	
C503FL,FR	963 9003 165	Ceramic 220pF/500V	
C503SL,SR	963 9003 165	Ceramic 220pF/500V	
C504C	963 9003 178	Ceramic 220pF/50V	
C504FL,FR	963 9003 178	Ceramic 220pF/50V	
C504SL,SR	963 9003 178	Ceramic 220pF/50V	
C505C	963 9003 181	Ceramic 33pF/500V	
C505FL,FR	963 9003 181	Ceramic 33pF/500V	
C505SL,SR	963 9003 181	Ceramic 33pF/500V	
C506C		Electrolytic 100μF/10V	
C506FL,FR		Electrolytic 100μF/10V	
C506SL,SR		Electrolytic 100μF/10V	
C507C	963 9003 194	Mylar film 0.0022μF/100V	
C507FL,FR	963 9003 194	Mylar film 0.0022μF/100V	
C507SL,SR	963 9003 194	Mylar film 0.0022μF/100V	
C514C		Electrolytic 22μF/16V	
C514FL,FR		Electrolytic 22μF/16V	

Ref. No.	Part No.	Part Name	Remarks	Q'ty
OTHER PARTS GROUP				
CN501	963 0085 506	9P connector socket (TUC-P)		1
CN502-504	963 0085 603	5P connector socket (TUC-P)		3
CN505	963 0085 700	6P connector socket (TUC-P)		1
CP506	963 0060 709	8P connector base		1
CP554	963 0060 903	15P connector base		1
—	960 0184 000	Screw bracket		2

DSP P.W.B. ASS'Y

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC801,802	269 0186 002	IC GP1FA502RZ	
IC803	963 0073 903	IC 74VHCU04	
IC805,806	963 0043 807	IC BA4510F	
IC807	963 0073 709	IC M27W201-80B6	
IC807S	963 0025 508	32P IC socket	
IC808,809	963 0074 407	IC MM74LCX574WMX	
IC810	960 0195 507	IC LC89055W	
IC811	963 0074 805	IC RC1117S33ST	
IC812	963 0079 208	IC CS49326-CL	
IC813	963 0074 601	IC AK4527B-VQ	
IC814~816	963 0024 004	IC NJM2068MD	
IC817	269 0189 009	IC GP1FA502TZ	
IC818,819	963 0074 203	IC MM74LCX244WMX	
IC820	963 0074 708	IC RC1117S25T	
IC822	960 0195 109	IC SN74LV00APW	
IC828	963 0074 300	IC MM74HCT244WMX	
IC829	960 0196 001	IC NJM7805FA (S)	
IC830	963 0074 300	IC MM74HCT244WMX	
IC831	960 0195 303	IC SN74LV4040APWR	
IC832	963 0074 106	IC MM74HC151MX	
Q804C	960 0196 603	Transistor KTC2874B	
Q804FL,FR	960 0196 603	Transistor KTC2874B	
Q804SL,SR	960 0196 603	Transistor KTC2874B	
Q804SW	960 0196 603	Transistor KTC2874B	
Q805	269 0083 901	Transistor DTA114EK	
Q806	269 0082 902	Transistor DTC114EK	
Q807	269 0083 901	Transistor DTA114EK	
Q808	269 0082 902	Transistor DTC114EK	
D801	960 0197 000	Diode KDS160	
D806,807	960 0197 000	Diode KDS160	
RESISTORS GROUP			
R801	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R803	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R804,805	963 9003 385	Carbon chip 100 ohm 1/16W	
R808	963 9004 274	Carbon chip 33 kohm 1/16W	
R817~825	963 9004 070	Carbon chip 10 kohm 1/16W	
R830	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R831	963 9004 070	Carbon chip 10 kohm 1/16W	
R834,835	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R836	963 9004 070	Carbon chip 10 kohm 1/16W	
R838	963 9004 070	Carbon chip 10 kohm 1/16W	
R839	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R841	963 9004 339	Carbon chip 470 ohm 1/16W	
R842	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R845R	963 9004 355	Carbon chip 47 kohm 1/16W	
R848	963 9003 385	Carbon chip 100 ohm 1/16W	
R850	963 9004 465	Carbon chip 75 ohm 1/16W	
R854	963 9004 216	Carbon chip 2.2 kohm 1/16W	

Ref. No.	Part No.	Part Name	Remarks
R854L	963 9004 355	Carbon chip 47 kohm 1/16W	
R855	963 9004 083	Carbon chip 100 kohm 1/16W	
R856	963 9004 070	Carbon chip 10 kohm 1/16W	
R859L,R	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R860L,R	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R861	963 9004 326	Carbon chip 47 ohm 1/16W	
R861L,R	963 9004 339	Carbon chip 470 ohm 1/16W	
R862L,R	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R863L,R	963 9004 339	Carbon chip 470 ohm 1/16W	
R864C	963 9004 083	Carbon chip 100 kohm 1/16W	
R864FL,FR	963 9004 083	Carbon chip 100 kohm 1/16W	
R864SL,SR	963 9004 083	Carbon chip 100 kohm 1/16W	
R864SW	963 9004 083	Carbon chip 100 kohm 1/16W	
R866C	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R866FL,FR	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R866SL,SR	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R866SW	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R867C	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R867FL,FR	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R867SL,SR	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R867SW	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R868C	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R868FL,FR	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R868SL,SR	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R868SW	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R869C	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R869FL,FR	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R869SL,SR	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R869SW	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R870C	963 9003 398	Carbon chip 1 kohm 1/16W	
R870FL,FR	963 9003 398	Carbon chip 1 kohm 1/16W	
R870SL,SR	963 9003 398	Carbon chip 1 kohm 1/16W	
R870SW	963 9003 398	Carbon chip 1 kohm 1/16W	
R871C	963 9004 083	Carbon chip 100 kohm 1/16W	
R871FL,FR	963 9004 083	Carbon chip 100 kohm 1/16W	
R871SL,SR	963 9004 083	Carbon chip 100 kohm 1/16W	
R871SW	963 9004 083	Carbon chip 100 kohm 1/16W	
R872C	963 9004 216	Carbon chip 2.2 kohm 1/16W	
R872FL,FR	963 9004 216	Carbon chip 2.2 kohm 1/16W	
R872SL,SR	963 9004 216	Carbon chip 2.2 kohm 1/16W	
R872SW	963 9004 216	Carbon chip 2.2 kohm 1/16W	
R880,881	963 9004 326	Carbon chip 47 ohm 1/16W	
R911	963 9004 070	Carbon chip 10 kohm 1/16W	
R913	963 9004 096	Carbon chip 1 Mohm 1/16W	
R922	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R923	963 9004 410	Carbon chip 6.2 kohm 1/16W	
R927	963 9004 465	Carbon chip 75 ohm 1/16W	
R928	963 9004 371	Carbon chip 5.1 kohm 1/16W	
R929	963 9004 481	Carbon chip 8.2 kohm 1/16W	
R930	963 9004 261	Carbon chip 3 kohm 1/16W	
R931	963 9004 410	Carbon chip 6.2 kohm 1/16W	

Ref. No.	Part No.	Part Name	Remarks
R931L,R	963 9004 177	Carbon chip 18 kohm 1/16W	
R932	963 9004 342	Carbon chip 4.7 kohm 1/16W	
R938	963 9004 368	Carbon chip 470 kohm 1/16W	
R940	963 9004 070	Carbon chip 10 kohm 1/16W	
R949	963 9004 326	Carbon chip 47 ohm 1/16W	
R952,953	963 9003 385	Carbon chip 100 ohm 1/16W	
CAPACITORS GROUP			
C801	963 9004 711	Ceramic chip 0.1µF/50V	
C802,803	963 9004 591	Ceramic chip 22pF/50V	
C805	963 9004 591	Ceramic chip 22pF/50V	
C808	963 9004 711	Ceramic chip 0.1µF/50V	
C809		Electrolytic 47µF/10V	
C810	963 9004 711	Ceramic chip 0.1µF/50V	
C811		Electrolytic 47µF/10V	
C812	963 9004 711	Ceramic chip 0.1µF/50V	
C813		Electrolytic 47µF/10V	
C814	963 9004 591	Ceramic chip 22pF/50V	
C815	963 9004 711	Ceramic chip 0.1µF/50V	
C816	963 9004 591	Ceramic chip 22pF/50V	
C817		Electrolytic 0.1µF/50V	
C818	963 9004 711	Ceramic chip 0.1µF/50V	
C819,820		Electrolytic 47µF/10V	
C821		Electrolytic 100µF/10V	
C822,823	963 9004 711	Ceramic chip 0.1µF/50V	
C824		Electrolytic 47µF/10V	
C825		Electrolytic 1µF/50V	
C826		Electrolytic 10µF/35V	
C827	963 9004 711	Ceramic chip 0.1µF/50V	
C828	963 9004 698	Ceramic chip 0.01µF/50V	
C829		Electrolytic 10µF/35V	
C830~832	963 9004 711	Ceramic chip 0.1µF/50V	
C833	963 9004 656	Ceramic chip 470pF/50V	
C834		Electrolytic 10µF/35V	
C835		Electrolytic 1µF/50V	
C836		Electrolytic 220µF/6.3V	
C837,838	963 9004 711	Ceramic chip 0.1µF/50V	
C839	963 9004 698	Ceramic chip 0.01µF/50V	
C840		Electrolytic 2.2µF/50V	
C841		Electrolytic 47µF/10V	
C842	963 9004 711	Ceramic chip 0.1µF/50V	
C844	963 9004 711	Ceramic chip 0.1µF/50V	
C845	963 9004 698	Ceramic chip 0.01µF/50V	
C849	963 9004 698	Ceramic chip 0.01µF/50V	
C851	963 9004 698	Ceramic chip 0.01µF/50V	
C854,855		Electrolytic 100µF/25V	
C856~863	963 9004 711	Ceramic chip 0.1µF/50V	
C864L,864R		Electrolytic 10µF/35V	
C865L,R	963 9004 575	Ceramic chip 100pF/50V	
C866	963 9004 698	Ceramic chip 0.01µF/50V	
C869L,R	963 9004 575	Ceramic chip 100pF/50V	
C871L,R	963 9004 685	Ceramic chip 1000pF/50V	

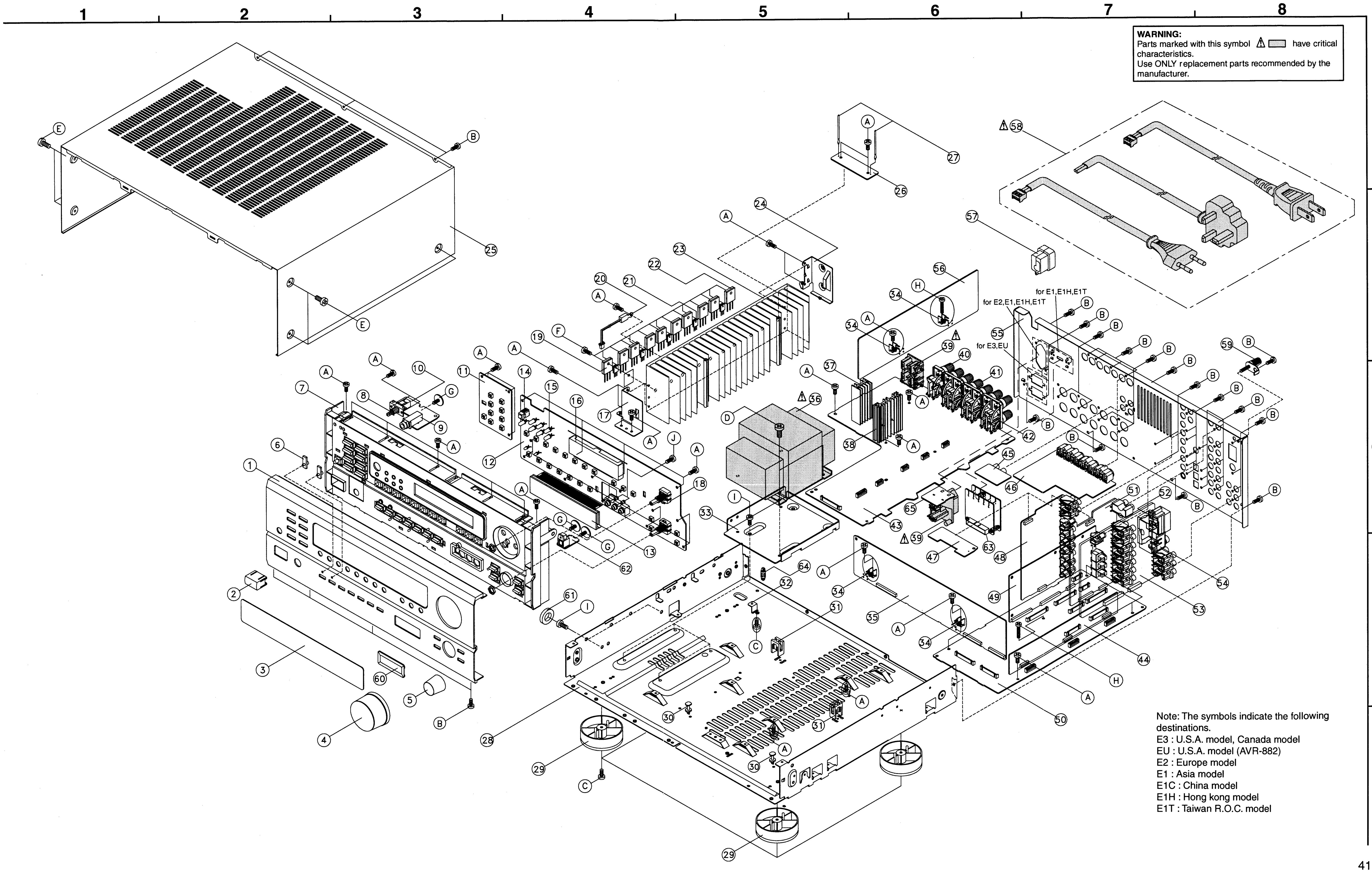
Ref. No.	Part No.	Part Name	Remarks
C873C	963 9004 672	Ceramic chip 680pF/50V	
C873FL,FR	963 9004 672	Ceramic chip 680pF/50V	
C873SL,SR	963 9004 672	Ceramic chip 680pF/50V	
C873SW	963 9004 672	Ceramic chip 680pF/50V	
C874C	963 9004 672	Ceramic chip 680pF/50V	
C874FL,FR	963 9004 672	Ceramic chip 680pF/50V	
C874SL,SR	963 9004 672	Ceramic chip 680pF/50V	
C874SW	963 9004 672	Ceramic chip 680pF/50V	
C875C		Electrolytic 10μF/35V	
C875FL,FR		Electrolytic 10μF/35V	
C875SL,SR		Electrolytic 10μF/35V	
C875SW		Electrolytic 10μF/35V	
C876C	963 9004 740	Ceramic chip 3300pF/50V	
C876FL,FR	963 9004 740	Ceramic chip 3300pF/50V	
C876SL,SR	963 9004 740	Ceramic chip 3300pF/50V	
C876SW	963 9004 740	Ceramic chip 3300pF/50V	
C880C		Electrolytic 10μF/35V	
C880FL,FR		Electrolytic 10μF/35V	
C880SL,SR		Electrolytic 10μF/35V	
C880SW		Electrolytic 10μF/35V	
C908,909	963 9004 614	Ceramic chip 27pF/50V	
C916	963 9004 711	Ceramic chip 0.1μF/50V	
C917		Electrolytic 10μF/35V	
C918	963 9004 711	Ceramic chip 0.1μF/50V	
C919	963 9004 698	Ceramic chip 0.01μF/50V	
C920	963 9004 711	Ceramic chip 0.1μF/50V	
C921	963 9004 698	Ceramic chip 0.01μF/50V	
C923	963 9004 711	Ceramic chip 0.1μF/50V	
C925	963 9004 711	Ceramic chip 0.1μF/50V	
C926		Electrolytic 10μF/35V	
C931	963 9004 698	Ceramic chip 0.01μF/50V	
C936	963 9004 711	Ceramic chip 0.1μF/50V	
C937		Electrolytic 10μF/35V	
C938		Electrolytic 1μF/50V	
C939,940	963 9004 698	Ceramic chip 0.01μF/50V	
C943		Electrolytic 0.1μF/50V	
C944	963 9004 698	Ceramic chip 0.01μF/50V	
C946,947	963 9004 711	Ceramic chip 0.1μF/50V	
C948		Electrolytic 10μF/35V	
C949		Electrolytic 2.2μF/50V	
C950	963 9004 711	Ceramic chip 0.1μF/50V	
C951		Electrolytic 100μF/10V	
C952,953	963 9004 711	Ceramic chip 0.1μF/50V	
C954	963 9004 698	Ceramic chip 0.01μF/50V	
C956	963 9004 685	Ceramic chip 1000pF/50V	
C957	963 9004 711	Ceramic chip 0.1μF/50V	
C958		Electrolytic 100μF/10V	

Ref. No.	Part No.	Part Name	Remarks	Q'ty
OTHER PARTS GROUP				
CB801	963 0050 502	Chip emifil		1
CB803~808	963 0050 502	Chip emifil		6
CB828	963 0050 502	Chip emifil		1
CN801,802	963 0085 302	17P connector socket (TUC-P)		2
CN803	963 0085 409	10P connector socket (TUC-P)		1
JACK801	963 0052 500	1P pin jack		1
L801,802	963 0050 803	Inductor 4.7μH		2
L803	963 0050 900	Inductor 2.2μH		1
L805,806	963 0050 803	Inductor 4.7μH		2
L807	963 0050 900	Inductor 2.2μH		1
XTAL801	960 0180 907	Crystal 12.288MHz		1

VOLTAGE P.W.B. ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty
OTHER PARTS GROUP				
CN105	963 0059 202	2P connector cord	E1,E1H,E1T	1
CN903	963 0058 805	2P connector cord	E1,E1H,E1T	1
CP901	963 0061 203	5P connector base	E1,E1H,E1T	1
CP902	963 0059 309	3P connector cord	E1,E1H,E1T	1
⚠ F101	960 0142 602	Fuse 2.5A	E1,E1H,E1T	1
⚠ F101A,B	960 0005 804	Fuse clip	E1,E1H,E1T	2
⚠ F102	963 0044 709	Fuse 3.15A	E1,E1H,E1T	1
⚠ F102A,B	960 0005 804	Fuse clip	E1,E1H,E1T	2
⚠ F901	963 0057 107	Fuse 6.3A	E1,E1H,E1T	1
⚠ F901A,B	960 0005 804	Fuse clip	E1,E1H,E1T	2
⚠ JK911	960 0143 203	AC outlet	E1,E1H,E1T	1
⚠ JK912	963 0056 904	SLIDE SW	E1,E1H,E1T	1

EXPLODED VIEW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for E3,EU
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65
A B C D E F G H I J

WARNING:
Parts marked with this symbol ⚠ ▭ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

Note: The symbols indicate the following destinations.
E3 : U.S.A. model, Canada model
EU : U.S.A. model (AVR-882)
E2 : Europe model
E1 : Asia model
E1C : China model
E1H : Hong kong model
E1T : Taiwan R.O.C. model

Note: The symbols in the column "Remarks" indicate the following destinations.
E3: U.S.A. model, Canada model
EU: U.S.A. model (AVR-882)
E2: Europe model
E1: Asia model
E1C: China model
E1H: Hong Kong model
E1T: Taiwan R.O.C. model

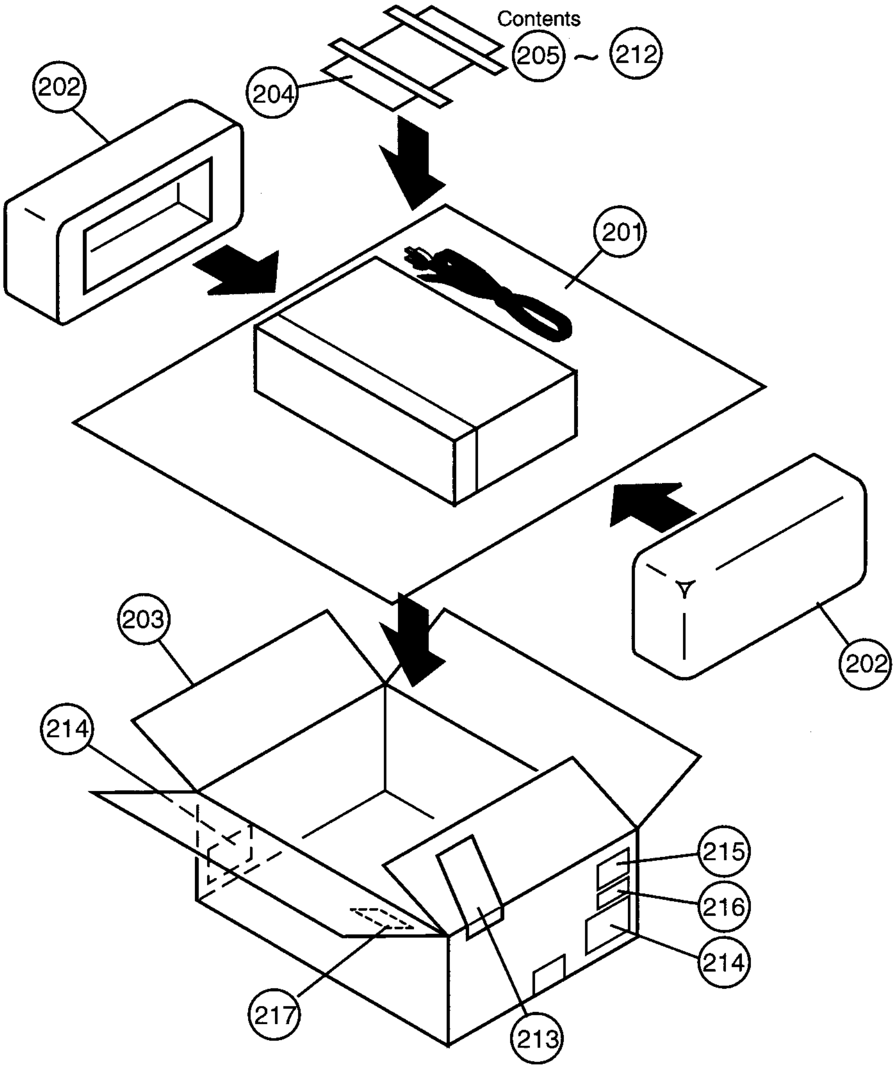
PARTS LIST OF EXPLODED VIEW

Ref. No.	Part No.	Part Name	Remarks	Q'ty
	963 0082 606	Main P.W.B assy	for E3, EU	1
	963 0082 622		for E2	1
	963 0082 635		for E1C	1
	963 0082 648		for E1, E1H, E1T	1
43		Main P.W.B assy		1
44		Front-CNT P.W.B assy		1
51		Input P.W.B assy		1
	963 0082 703	Processor P.W.B assy	for E3, EU	1
	963 0082 729		for E2	1
	963 0082 732		for E1C	
	963 0082 745		for E1, E1H, E1T	1
12		Front P.W.B assy		1
50		CPU P.W.B assy		1
62		Front-Optical P.W.B assy		1
	963 0082 907	CNT P.W.B assy	for E3, EU	1
	963 0082 923		for E2	
	963 0082 936		for E1C	
	963 0082 949		for E1, E1H, E1T	1
10		Head phone P.W.B assy		1
11		Switch P.W.B assy		1
26		Video-CNT P.W.B assy		1
35		CNT P.W.B assy		1
45		Preout P.W.B assy		1
46		S-Video P.W.B assy		1
47		CDR-CNT P.W.B assy		1
48		Video P.W.B assy		1
53		Tuner P.W.B assy		1
65		Outlet P.W.B assy		1
	963 0082 800	Pre-Amp P.W.B assy	for E3, EU	1
	963 0082 826		for E2	
	963 0082 839		for E1C	
	963 0082 842		for E1, E1H, E1T	
56		Pre-Amp P.W.B assy		1
	963 0083 003	DSP P.W.B assy	for E3, EU	1
	963 0083 029		for E2	
	963 0083 032		for E1C	
	963 0083 045		for E1, E1H, E1T	
49		DSP P.W.B assy		1
	963 0088 600	Voltage P.W.B assy	for E1,E1H,E1T	1
63		Voltage P.W.B assy	for E1,E1H,E1T	1
1	963 0082 004	Front panel	for E3	1
	963 0082 062		for EU	
	963 0082 017		for E2 (Black model)	1
	963 0082 020		for E2 (Gold model)	1
	963 0082 046		for E1 (Gold model)	1
	963 0082 059		for E1 (Black model)	1
2	960 0185 009	Power button	for Black model	1
	963 0055 206	Power button (GO)	for Gold model	1

Ref. No.	Part No.	Part Name	Remarks	Q'ty
3	963 0082 305	Window		1
4	963 0054 906	Main volume knob	for Black model	1
	963 0055 002	Main volume knob (GO):MOLD	for E2 (Gold model)	1
	112 0839 008	Main volume knob (GO) : AL	for E1, E1C, E1H, E1T	1
5	963 0054 809	Select knob(BK)	for E3, EU, E2/Black model	1
	963 0055 109	Select knob (GO) : MOLD	for E2 (Gold model)	1
	112 0835 015	Select knob (GO) : AL	for E1, E1C, E1H, E1T	1
6	963 0051 307	Lens		2
7	963 0082 208	Front frame	for Black model	1
	963 0082 211		for Gold model	1
8	960 0176 209	Push switch	for E3, EU	1
	963 0056 603	Push switch	for E1, E1C, E1H, E1T, E2	1
9	960 0187 502	Head phone jack (D6.5)	for E3, EU, E2	1
	960 0176 306	Head phone jack (D6.5)	for E1, E1C, E1H, E1T	1
13	960 0180 509	FLT (16-ST-42GNK)		1
14	960 0181 100	IC NJL64H380A	RMC301	1
15	960 0197 204	LED PI5-RD/HL50RDRF4T	LED301-309	8
16	960 0184 408	FLT holder		1
17	960 0184 301	Heat sink bracket F		1
18	960 0181 207	Rotary encoder (L=25)	VEC301	1
	960 0181 207	Rotary encoder (L=25)	VEC302	1
	963 0084 109	Rotary encoder (L=20)	VEC302 (for E1, E1C, E1H, E1T)	1
19	963 0044 107	Transistor 2SB1560Y	Q102C,FL,FR,SL,SR	5
20	960 0187 900	Posistor P43T7D330BW16		1
21	963 0058 106	Transistor 2SD947F	Q103C,FL,FR,SL,SR	5
22	963 0044 204	Transistor 2SD2390Y	Q101C,FL,FR,SL,SR	5
23	—	Heat sink		1
24	960 0184 204	Heat sink bracket B		1
25	960 0183 205	Top cabinet	for Black model	1
	963 0055 507	Top cabinet	for Gold model	1
27	—	Wire clamp		2
28	960 0198 216	Chassis		1
29	960 0183 904	Foot assy		4
30	963 0051 103	Card spacer		2
31	960 0003 301	PCB supporter		2
32	960 0184 107	Supporter bracket		1
33	960 0192 306	Trans bracket		1
34	960 0184 000	Screw bracket		4
⚠ 36	963 0088 503	Power trans	for E3, EU	1
	963 0088 516		for E2	1
	963 0088 529		for E1, E1H, E1T	1
	963 0088 532		for E1C	1
37	—	Heat sink		1
38	—	Heat sink		1
⚠ 39	960 0187 803	AC outlet(2P)	JK104 For E3,EU	1
⚠ 39	960 0143 203	AC outlet	for E2,E1,E1H,E1T	1
40	960 0194 809	2P speaker terminal	JK103	1
41	963 0074 009	8P speaker terminal		1
42	960 0188 608	4P speaker terminal		1
52	963 0088 406	Plate		1
54	963 0054 003	Shield tuner pack		1

Ref. No.	Part No.	Part Name	Remarks	Q'ty
55	963 0082 101	Back panel	for E3	1
	963 0082 156		for 882EU	1
	963 0082 114		for E2	1
	963 0082 130		for E1, E1H, E1T	1
	963 0082 143		for E1C	1
57	960 0192 403	Cord bush		1
⚠ 58	960 0166 400	AC cord assy	for E3, EU	1
	960 0165 304		for E2	1
	963 0060 408		for E1, E1T	1
	960 0143 009		for E1H	1
	963 0060 301		for E1C	1
59	960 0183 807	Terminal		1
60	963 0088 309	Cover	for E3, EU, E2/Black	1
	963 0088 312		for E2/Gold	1
61	963 0051 200	Cushion		2
64	963 0044 602	supporter	for E2, E1, E1C, E1H, E1T	1
★	960 0093 104	Push livet	for E2, E1, E1C, E1H, E1T	14
★	963 0061 407	FFC cable		1
A	963 0018 007	Screw (2S 3×8 ZNY/BH)		50
B	960 0108 701	Screw (2S 3×10 DOT BK)		43
C	963 0048 200	Screw (2S 3×10 ZNY/BH)		10
D	960 9008 417	Screw (3S 4×8 ZNY/BH)		4
E	963 0048 307	Screw (2S 4×8 DOT BK)		6
F	963 9004 009	Screw (2S 3×14 WASHER ZNY/HH)		15
G	960 9008 420	Screw (2S 3×8 WASHER)		3
H	963 0018 104	Screw (2S 3×17 ZNY/BH)		2
I	963 9004 025	Screw (3S 4×6 ZNY/BH)		6
J	963 9004 054	Screw (2S 3×15 ZNY/BH)		2

PACKING VIEW



Note: The symbols in the column "Remarks" indicate the following destinations.
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EU: U.S.A. model (AVR-882)
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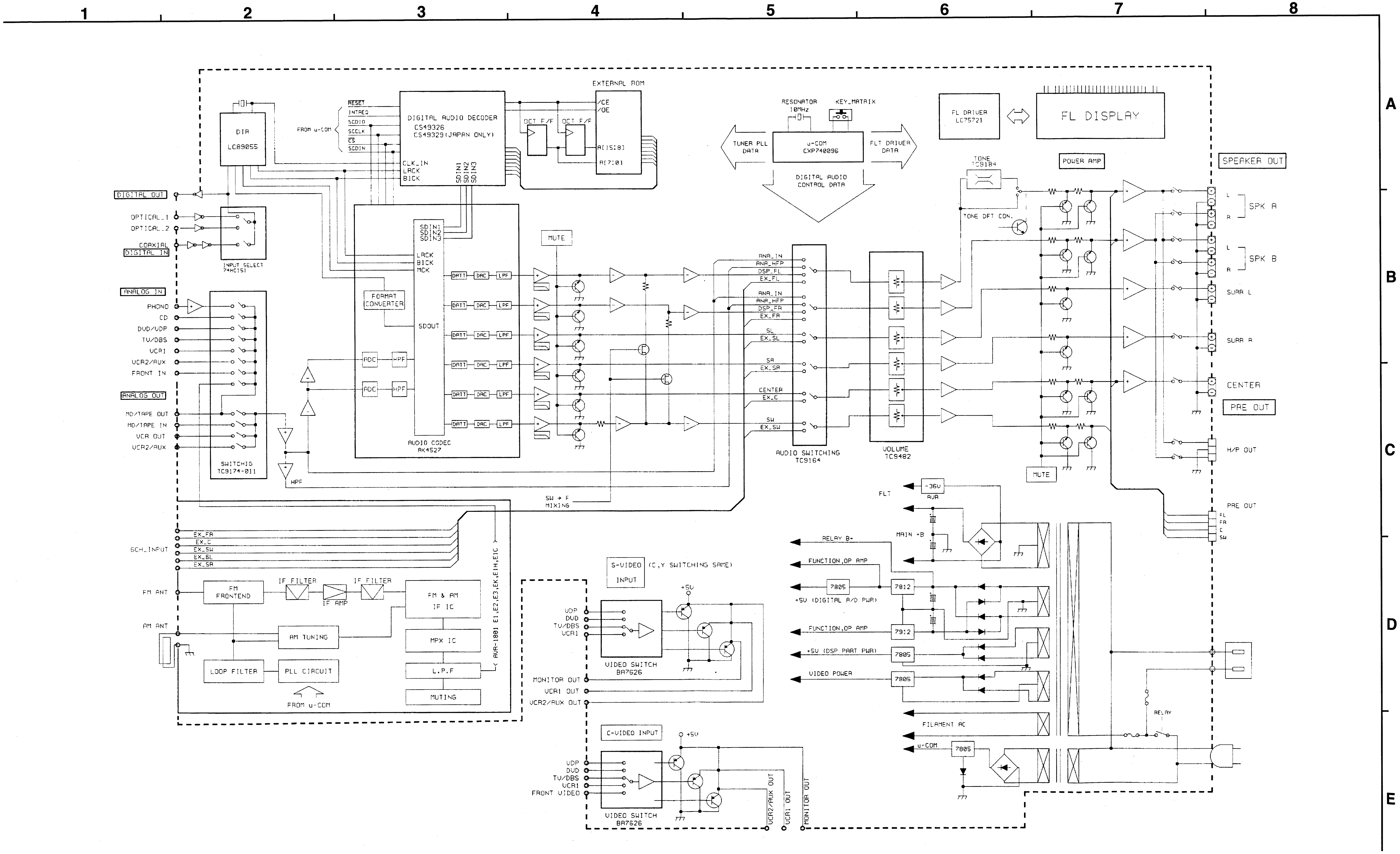
E1: Asia model
E1C: China model
E1H: Hong Kong model
E1T: Taiwan R.O.C. model

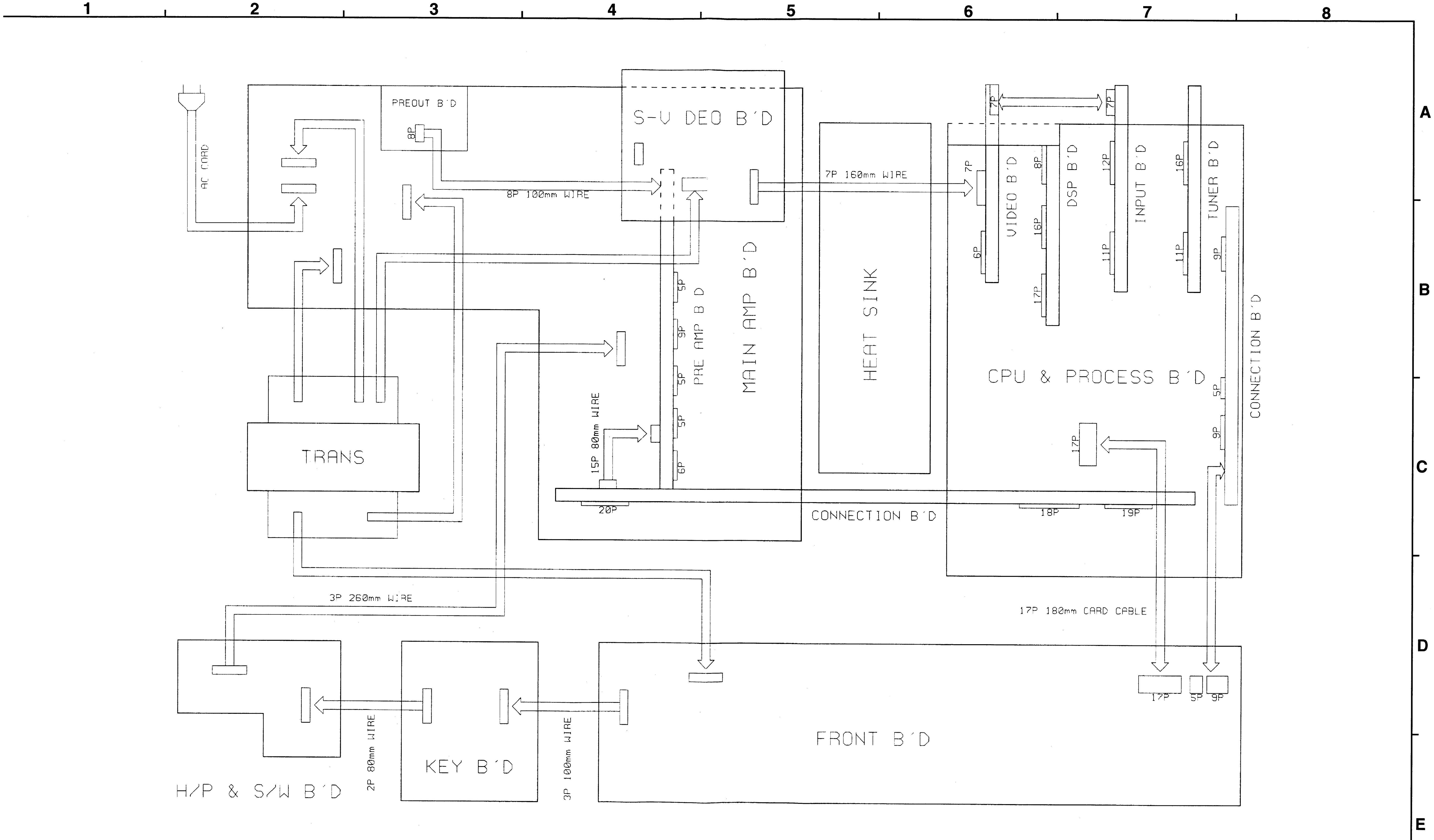
PARTS LIST OF PACKING & ACCESSORIES

Ref. No.	Part No.	Part Name	Remarks	Q'ty
201	960 0185 601	Set poly bag		1
202	960 0185 504	Cushion		2
203	963 0082 509	Carton case	for E3,E2	1
203	963 0085 205	Carton case	for EU	1
203	963 0082 512	Carton case	for E1,E1C,E1T	1
203	963 0082 525	Carton case	for E1H	1
204	963 0045 106	Poly bag		1
205	963 0082 402	Instruction manual	for E3,EU	1
205	963 0082 415	Instruction manual	for E2	1
205	963 0082 428	Instruction manual	for E1,E1H,E1T	1
205	963 0082 428	Instruction manual	for E1C	1
206	515 0867 101	S.S. list		1
207	963 0052 306	AM loop antenna		1
208	963 0052 209	FM antenna		1
209	963 0084 002	Remocon RC-897		1
210	—	Battery (R6P/AA)		2
211	963 0052 704	FM antenna adapter		1
212	963 0061 300	AC plug adapter	for E1T	1
213	515 0817 009	DEL Warranty home	for E3,EU	1
214	—	Control label		2
215	—	UPC label	for E3	1
215	—	UPC label	for EU	1
215	—	EAN label	for E2(Black model)	1
215	—	EAN label	for E2(Gold model)	1
216	—	Carton label	for E1C	1
217	—	Kolin label	for E1T	1
★	513 3322 003	Label (RDS,RADIO TEXT)	for E2	2
★	—	Label (CCIB)	for E1C	2
★	513 9111 001	Color label (Gold)	for Gold model	2
★	963 0055 905	Pad	for E1H	2

BLOCK DIAGRAM


1
2
3
4
5
6
7
8
A
B
C
D
E
DIR
LC89055
DIGITAL OUT
OPTICAL 1
OPTICAL 2
COAXIAL
DIGITAL IN
INPUT SELECT
74HC151
RESET
INTREQ
SCDIO
SCCLK
CS
SCDIN
FROM u-COM
DIGITAL AUDIO DECODER
CS49326
CS49329(JAPAN ONLY)
CLK_IN
LRCK
BICK
SDIN1
SDIN2
SDIN3
EXTERNAL ROM
/CE
/OE
OCT F/F
OCT F/F
A(15:8)
A(7:0)
RESONATOR
10MHz
KEY_MATRIX
TUNER PLL
DATA
u-COM
CXP740096
FLT DRIVER
DATA
DIGITAL AUDIO
CONTROL DATA
FL DRIVER
LC75721
FL DISPLAY
POWER AMP
TONE
TC9184
TONE DFT CON.
SPEAKER OUT
SPK A
SPK B
SURR L
SURR R
CENTER
PRE OUT
H/P OUT
L
R
ANALOG IN
PHONO
CD
DVD/VDP
TV/DBS
VCR1
VCR2/AUX
FRONT IN
ANALOG OUT
MD/TAPE OUT
MD/TAPE IN
VCR OUT
VCR2/AUX
SWITCHIG
TC9174-011
FORMAT
CONVERTER
LRCK
BICK
MCK
SDOUT
ADC
HPF
DATT
DAC
LPF
AUDIO CODEC
AK4527
MUTE
HPF
SW + F
MIXING
ANA_IN
ANA_HFP
DSP_FL
EX_FL
ANA_IN
ANA_HFP
DSP_FR
EX_FR
SL
EX_SL
SR
EX_SR
CENTER
EX_C
SW
EX_SW
AUDIO SWITCHING
TC9164
VOLUME
TC9482
MUTE
FLT
-36V
AVR
MAIN +B
RELAY B-
FUNCTION,OP AMP
7805
7812
+5V (DIGITAL A/D PWR)
FUNCTION,OP AMP
7912
+5V (DSP PART PWR)
7805
VIDEO POWER
7805
FILAMENT AC
u-COM
7805
RELAY
PRE OUT
FL
FR
C
SW
6CH INPUT
EX_FR
EX_C
EX_SW
EX_SL
EX_SR
FM ANT
AM ANT
FM
FRONTEND
IF FILTER
IF AMP
IF FILTER
FM & AM
IF IC
AM TUNING
MPX IC
LOOP FILTER
PLL CIRCUIT
L.P.F
MUTING
FROM u-COM
(AVR-1801 E1,E2,E3,EK,E1H,E1C)
S-VIDEO
INPUT
(C,Y SWITCHING SAME)
+5V
VDP
DVD
TV/DBS
VCR1
VIDEO SWITCH
BA7626
MONITOR OUT
VCR1 OUT
VCR2/AUX OUT
C-VIDEO INPUT
+5V
VDP
DVD
TV/DBS
VCR1
FRONT VIDEO
VIDEO SWITCH
BA7626
VCR2/AUX OUT
VCR1 OUT
MONITOR OUT

WIRING DIAGRAM


1
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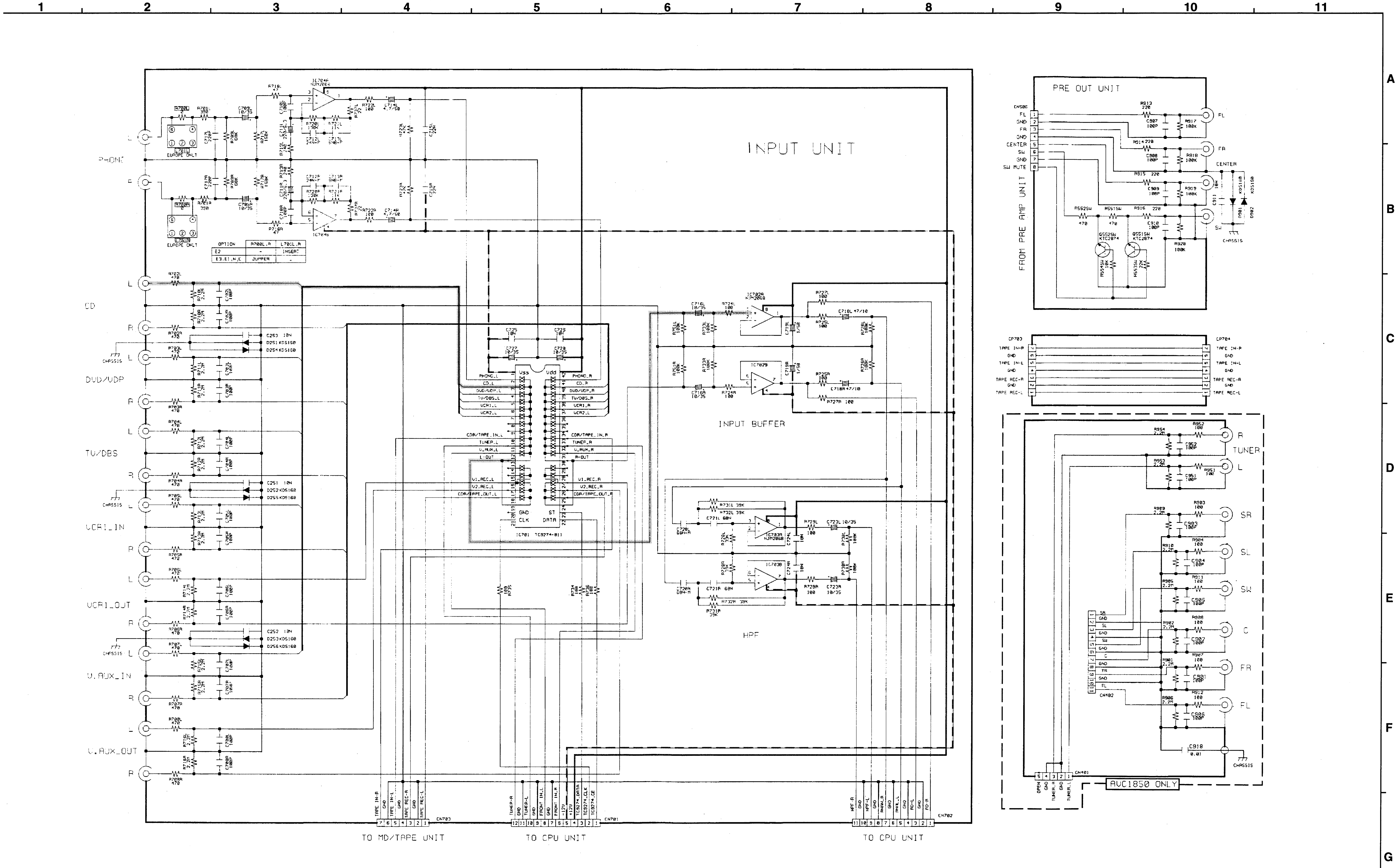
7
8
A
B
C
D
E
AC CORD
PREOUT B'D
8P
S-VDEO B'D
8P 100mm WIRE
7P 160mm WIRE
HEAT SINK
MAIN AMP B'D
PRE AMP B'D
5P
9P
5P
5P
6P
15P 80mm WIRE
20P
TRANS
CONNECTION B'D
7P
7P
7P
6P
VIDEO B'D
8P
16P
17P
DSP B'D
12P
11P
INPUT B'D
16P
11P
TUNER B'D
9P
5P
9P
CONNECTION B'D
CPU & PROCESS B'D
17P
18P
19P
3P 260mm WIRE
17P 180mm CARD CABLE
H/P & S/W B'D
2P 80mm WIRE
KEY B'D
3P 100mm WIRE
FRONT B'D
17P
5P
9P

AVR1802 WIRING DIAGRAM

SCHEMATIC DIAGRAMS (1/8)


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
INPUT UNIT
PHONE
L
R
EUROPE ONLY
OPTION | R700L,R | L701L,R
E2 | - | INSERT
E3,E1,N,C | JUMPER | -
IC704A NJM2068
IC704B
CD
DVD/VDP
TV/DBS
VCR1_IN
VCR1_OUT
V.AUX_IN
V.AUX_OUT
CHASSIS
C253 10N
D251 KDS160
D254 KDS160
C251 10N
D252 KDS160
D255 KDS160
C252 10N
D253 KDS160
D256 KDS160
IC701 TC9274-011
PHONE_L
CD_L
DVD/VDP_L
TV/DBS_L
VCR1_L
VCR2_L
CDR/TAPE_IN_L
TUNER_L
V_AUX_L
L-OUT
V1_REC_L
V2_REC_L
CDR/TAPE_OUT_L
PHONE_R
CD_R
DVD/VDP_R
TV/DBS_R
VCR1_R
VCR2_R
CDR/TAPE_IN_R
TUNER_R
V_AUX_R
R-OUT
V1_REC_R
V2_REC_R
CDR/TAPE_OUT_R
Vss
Vdd
GND
CLK
ST
DATA
IC702A NJM2068
IC702B
INPUT BUFFER
IC703A NJM2068
IC703B
HPF
TAPE IN-R
GND
TAPE IN-L
GND
TAPE REC-R
GND
TAPE REC-L
CN703
TUNER-R
GND
TUNER-L
GND
FRONT IN_L
GND
FRONT IN_R
-12V
+12V
TC9274 DATA
TC9274 CLK
TC9274 OE
CN701
HPF-R
GND
HPF-L
GND
PAMP-R
GND
PAMP-L
GND
AD-L
GND
AD-R
CN702
TO MD/TAPE UNIT
TO CPU UNIT
TO CPU UNIT
PRE OUT UNIT
FROM PRE AMP UNIT
CN508
FL
GND
FR
GND
CENTER
SW
GND
SW MUTE
FL
FR
CENTER
SW
CHASSIS
Q552SW KTC2874
Q551SW KTC2874
CP703
CP704
TAPE IN-R
GND
TAPE IN-L
GND
TAPE REC-R
GND
TAPE REC-L
TUNER
R
L
SR
SL
SW
C
FR
FL
CN402
CN401
C918 0.01
CHASSIS
OPEN
GND
TUNER_R
GND
TUNER_L
AVC1850 ONLY
+B LINE
-B LINE
SIGNAL LINE

WARNING:
Parts marked with this symbol ⚠▭ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

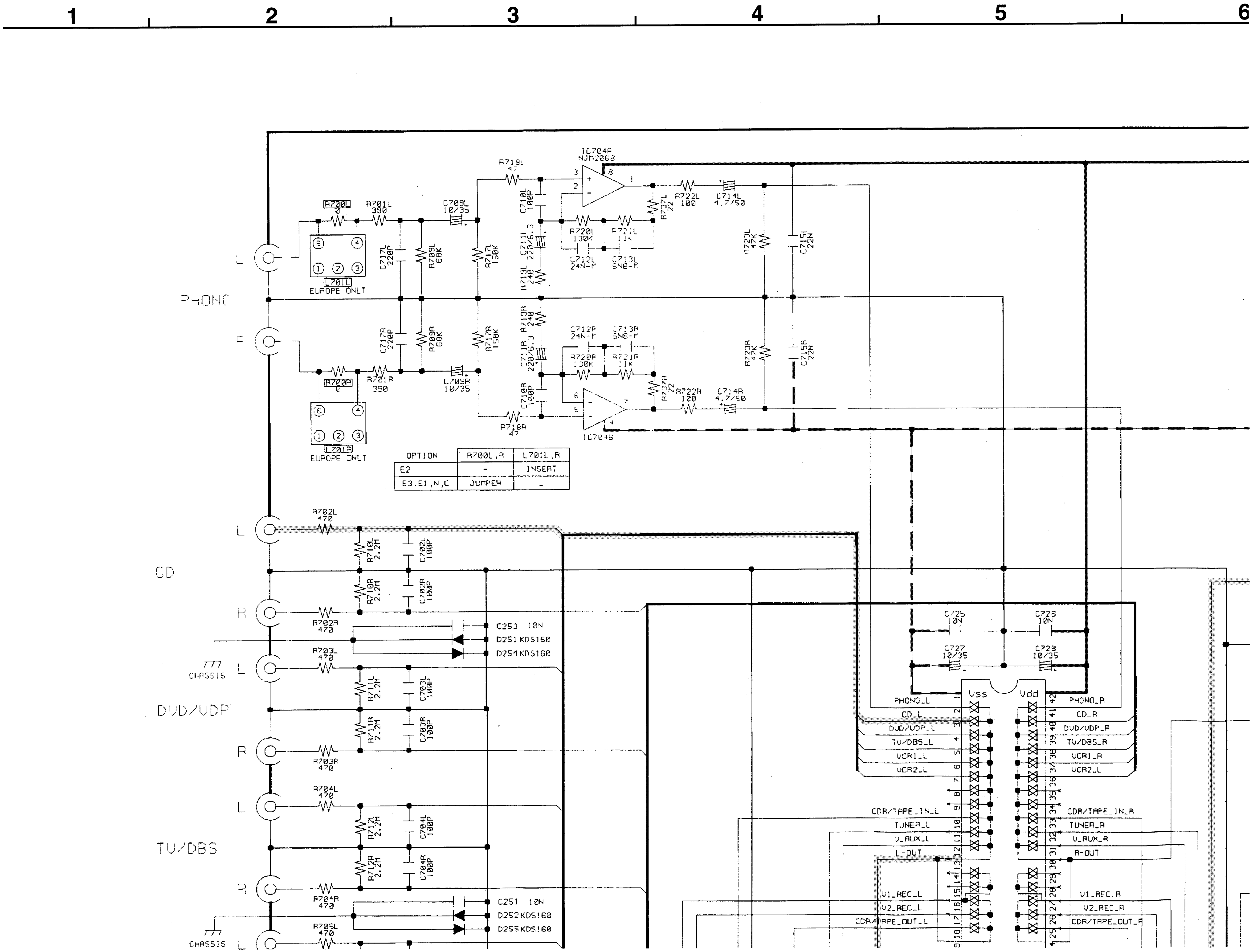
CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

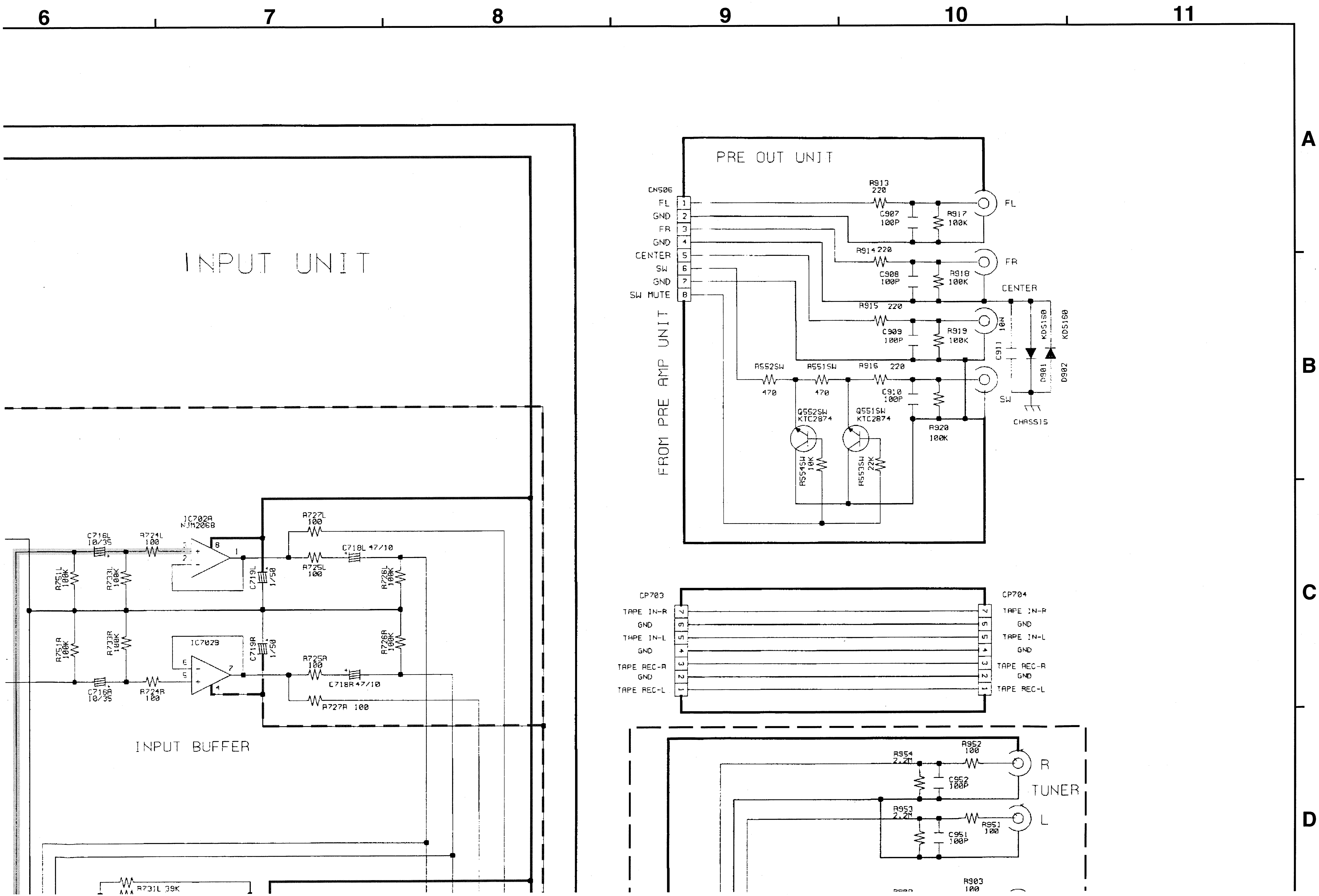
NOTICE
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

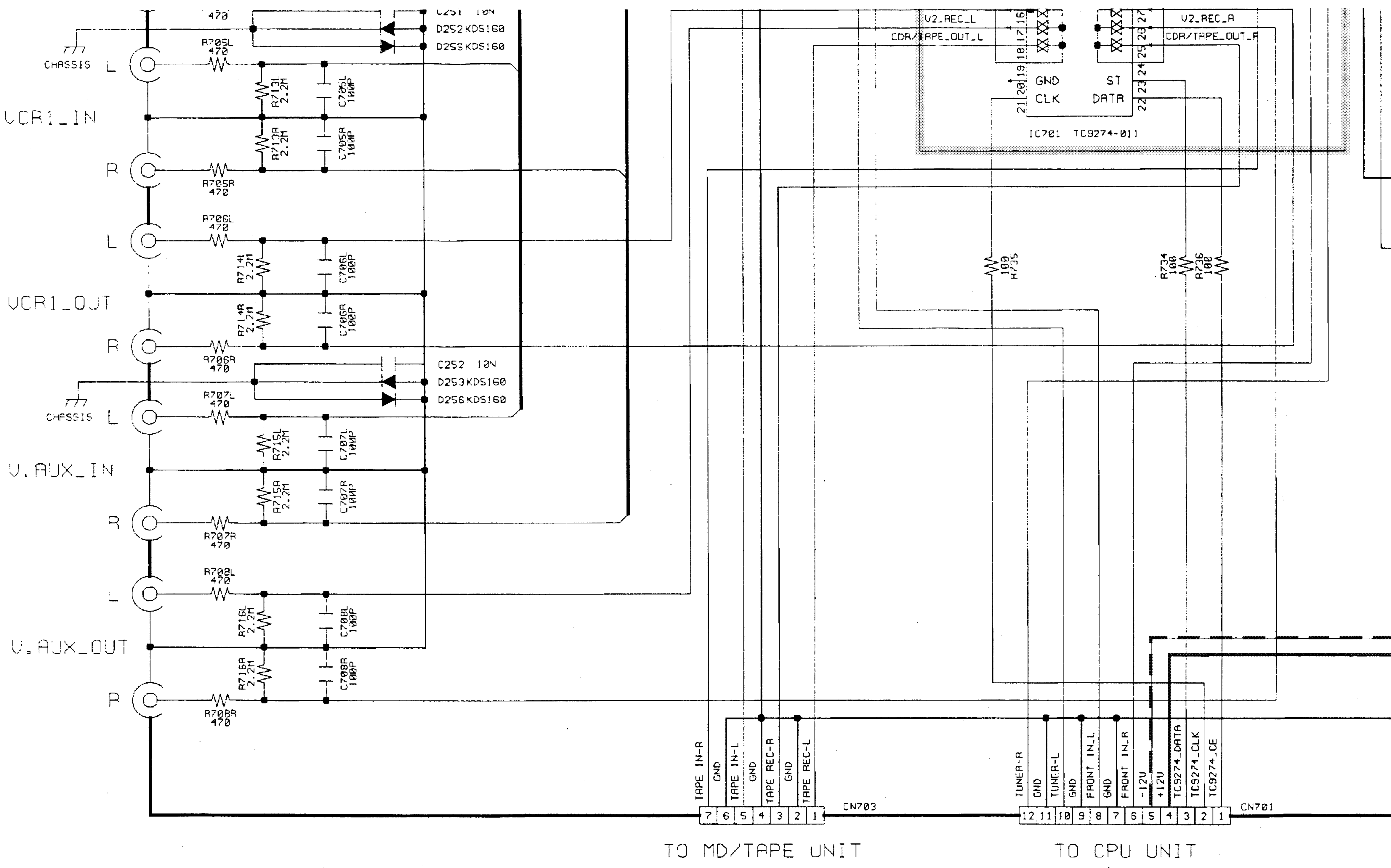
SCHEMATIC DIAGRAMS (1/8)
INPUT UNIT
CDR-CNT UNIT
PRE OUT UNIT

SCHEMATIC DIAGRAMS (1/8)

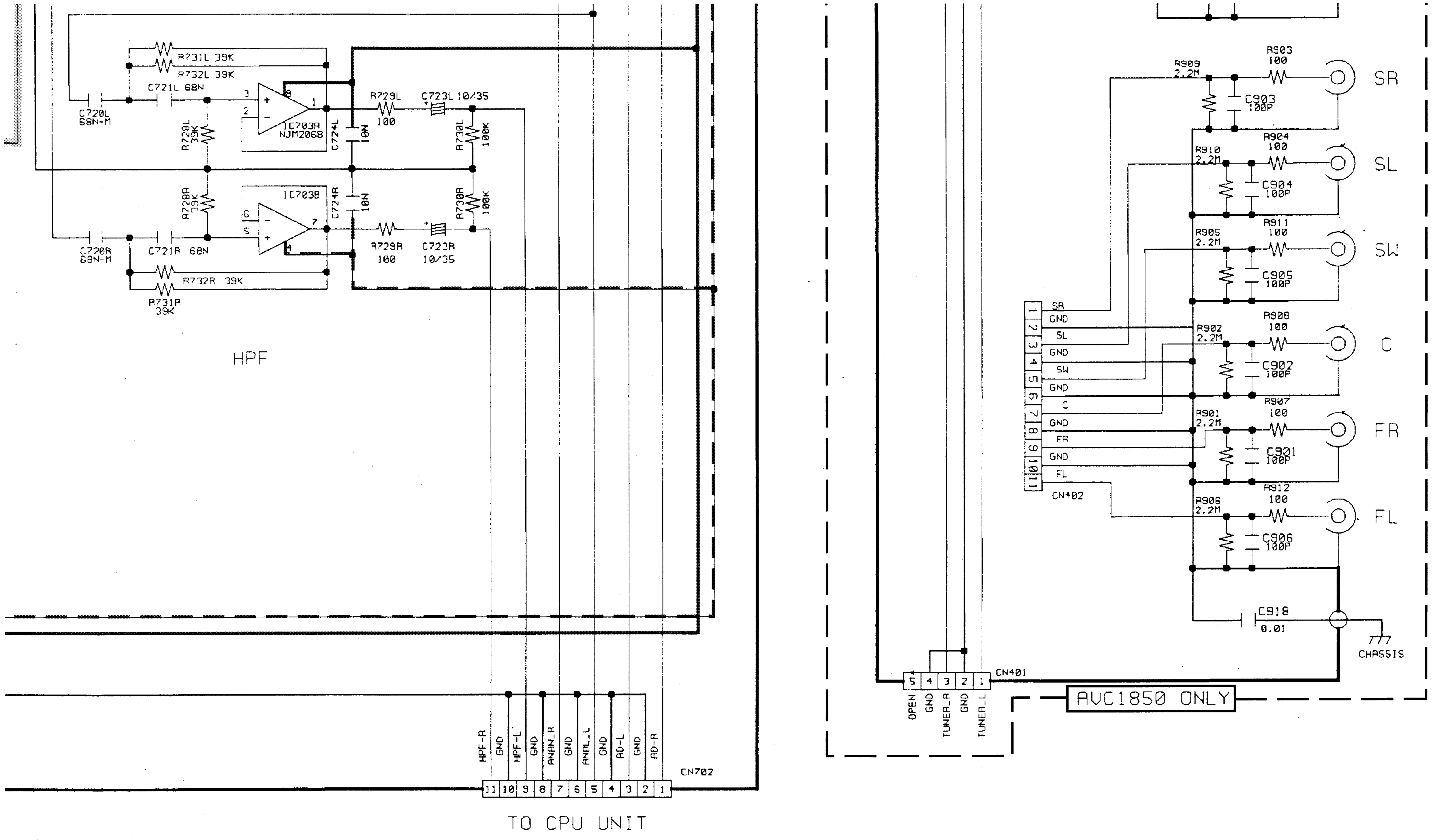

1
2
3
4
5
6
PHONO
L
R
R700L 0
R701L 390
C709L 10/35
R718L 47
IC704A NJM2068
C710L 100P
R720L 130K
R721L 11K
C711L 220/6.3
C712L 24N-K
C713L 5N6-K
R719L 240
R717L 150K
R709L 68K
C717L 220P
L701L
EUROPE ONLY
R737L 22
R722L 100
C714L 4.7/50
R723L 47K
C715L 22N
R700R 0
R701R 390
C709R 10/35
R718R 47
IC704B
C710R 100P
R720R 130K
R721R 11K
C711R 220/6.3
C712R 24N-K
C713R 5N6-K
R719R 240
R717R 150K
R709R 68K
C717R 220P
L701R
EUROPE ONLY
R737R 22
R722R 100
C714R 4.7/50
R723R 47K
C715R 22N
CD
R702L 470
R710L 2.2M
C702L 100P
R710R 2.2M
C702R 100P
R702R 470
C253 10N
D251 KDS160
D254 KDS160
CHASSIS
DVD/VDP
R703L 470
R711L 2.2M
C703L 100P
R711R 2.2M
C703R 100P
R703R 470
TV/DBS
R704L 470
R712L 2.2M
C704L 100P
R712R 2.2M
C704R 100P
R704R 470
C251 10N
D252 KDS160
D255 KDS160
CHASSIS
R705L 470
C725 10N
C726 10N
C727 10/35
C728 10/35
Vss
Vdd
PHONO_L
CD_L
DVD/VDP_L
TV/DBS_L
VCR1_L
VCR2_L
CDR/TAPE_IN_L
TUNER_L
V_AUX_L
L-OUT
V1_REC_L
V2_REC_L
CDR/TAPE_OUT_L
PHONO_R
CD_R
DVD/VDP_R
TV/DBS_R
VCR1_R
VCR2_R
CDR/TAPE_IN_R
TUNER_R
V_AUX_R
R-OUT
V1_REC_R
V2_REC_R
CDR/TAPE_OUT_R

OPTION	R700L,R	L701L,R
E2	-	INSERT
E3,E1,N,C	JUMPER	-


6
7
8
9
10
11
A
B
C
D
INPUT UNIT
INPUT BUFFER
IC702A
NJM2068
IC702B
C716L 10/35
C716R 10/35
R724L 100
R724R 100
R751L 100K
R751R 100K
R733L 100K
R733R 100K
C719L 1/50
C719R 1/50
R727L 100
R727R 100
R725L 100
R725R 100
C718L 47/10
C718R 47/10
R726L 100K
R726R 100K
R731L 39K
PRE OUT UNIT
FROM PRE AMP UNIT
CN506
FL
GND
FR
GND
CENTER
SW
GND
SW MUTE
R913 220
R914 220
R915 220
R916 220
C907 100P
C908 100P
C909 100P
C910 100P
R917 100K
R918 100K
R919 100K
R920 100K
C911 10N
D901 KDS160
D902 KDS160
CHASSIS
R552SW 470
R551SW 470
Q552SW KTC2874
Q551SW KTC2874
R554SW 10K
R553SW 22K
CP703
CP704
TAPE IN-R
GND
TAPE IN-L
GND
TAPE REC-R
GND
TAPE REC-L
TUNER
R
L
R954 2.2M
R953 2.2M
R952 100
R951 100
C952 100P
C951 100P
R903 100


CHASSIS
VCR1_IN
VCR1_OUT
V.AUX_IN
V.AUX_OUT
L
R
R705L 470
R705R 470
R706L 470
R706R 470
R707L 470
R707R 470
R708L 470
R708R 470
R713L 2.2M
R713R 2.2M
R714L 2.2M
R714R 2.2M
R715L 2.2M
R715R 2.2M
R716L 2.2M
R716R 2.2M
C705L 100P
C705R 100P
C706L 100P
C706R 100P
C707L 100P
C707R 100P
C708L 100P
C708R 100P
C251 10N
D252 KDS160
D255 KDS160
C252 10N
D253 KDS160
D256 KDS160
V2_REC_L
CDR/TAPE_OUT_L
V2_REC_R
CDR/TAPE_OUT_R
GND
CLK
ST
DATA
IC701 TC9274-011
R735 100
R734 100
R736 100
TAPE IN-R
GND
TAPE IN-L
GND
TAPE REC-R
GND
TAPE REC-L
CN703
TUNER-R
GND
TUNER-L
GND
FRONT IN_L
GND
FRONT IN_R
-12V
+12V
TC9274_DATA
TC9274_CLK
TC9274_CE
CN701
TO MD/TAPE UNIT
TO CPU UNIT

NOTICE
ALL RESISTANCE VAL
ALL CAPACITANCE VA
EACH VOLTAGE AND C
CONDITION.
CIRCUIT AND PARTS A
NOTICE.


R731L 39K
R732L 39K
C721L 68N
C720L 68N-M
R728L 39K
IC703A NJM2068
C724L 10N
R729L 100
C723L 10/35
R730L 100K
IC703B
R728R 39K
C724R 10N
R729R 100
C723R 10/35
R730R 100K
C720R 68N-M
C721R 68N
R732R 39K
R731R 39K
HPF
HPF-R
GND
HPF-L
GND
ANAN_R
GND
ANAL_L
GND
AD-L
GND
AD-R
CN702
TO CPU UNIT
CN401
OPEN
GND
TUNER_R
GND
TUNER_L
AVC1850 ONLY
CN402
SR
GND
SL
GND
SW
GND
C
GND
FR
GND
FL
R909 2.2M
R903 100
C903 100P
R910 2.2M
R904 100
C904 100P
R905 2.2M
R911 100
C905 100P
R902 2.2M
R908 100
C902 100P
R901 2.2M
R907 100
C901 100P
R906 2.2M
R912 100
C906 100P
C918 0.01
CHASSIS
SR
SL
SW
C
FR
FL
E
F
G
H

—— +B LINE

– – – – –B LINE

▨ SIGNAL LINE

CE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
NCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
E AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT

PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR

WARNING:

Parts marked with this symbol ⚠ ▭ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

WARNING:

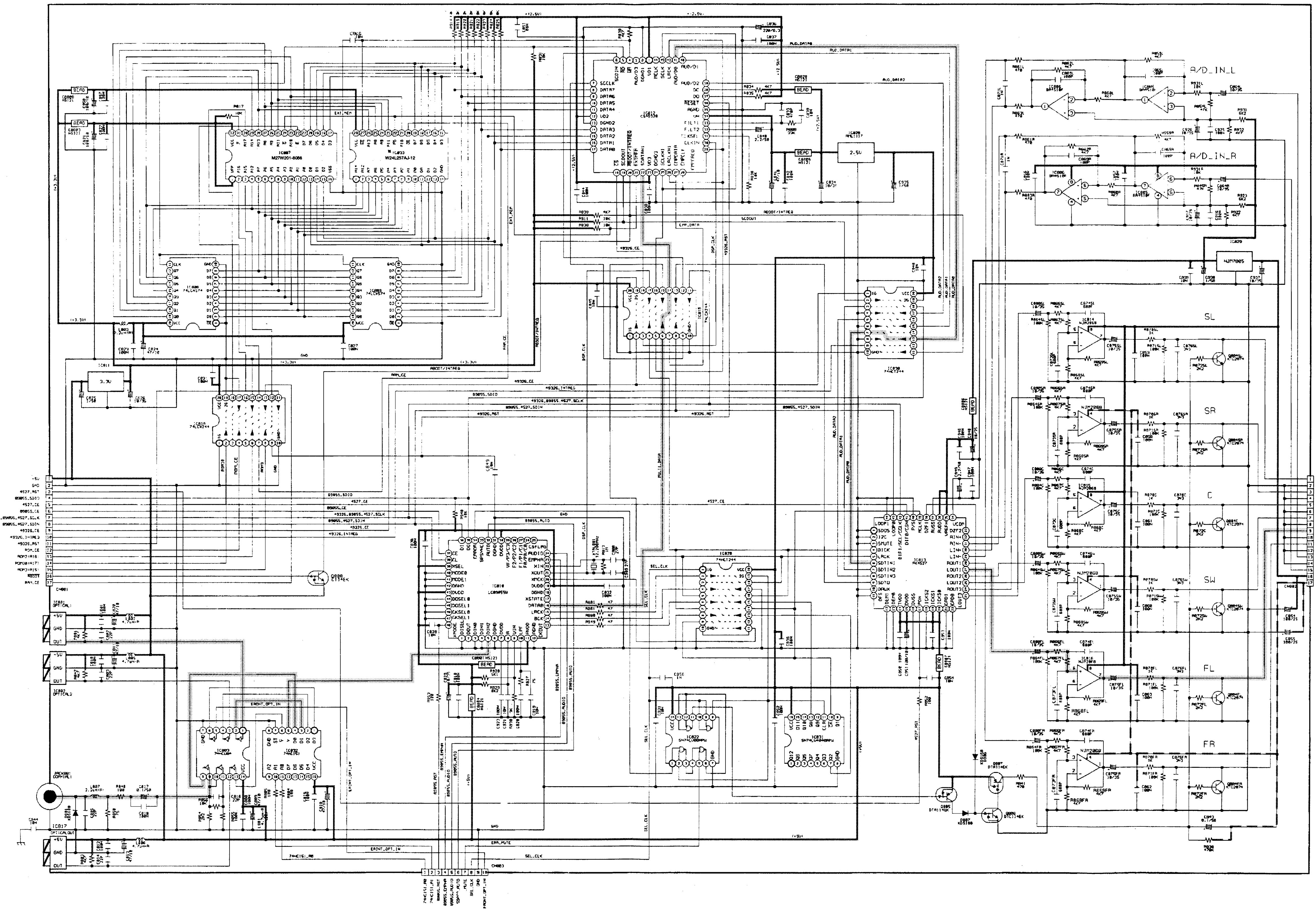
DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAMS (1/8)

INPUT UNIT
CDR-CNT UNIT
PRE OUT UNIT

SCHEMATIC DIAGRAMS (2/8)

	IC812	IC833
-N	CS49329	W24L257AJ-12
E3, E2, E1, E1H, E1T, E1C	CS49326	


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
IC807 M27W201-80B6
IC833 W24L257AJ-12
IC812 CS49329
IC810 LC89055W
IC813 AK4527
IC809 NJM7805
A/D_IN_L
A/D_IN_R
SL
SR
C
SW
FL
FR
2.5V
3.3V
+5V
GND
OUT
JACK801 COAXIAL1
IC801 OPTICAL1
IC802 OPTICAL2
IC817 OPTICAL OUT
CN801
CN802
CN803
BEAD

NOTICE
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

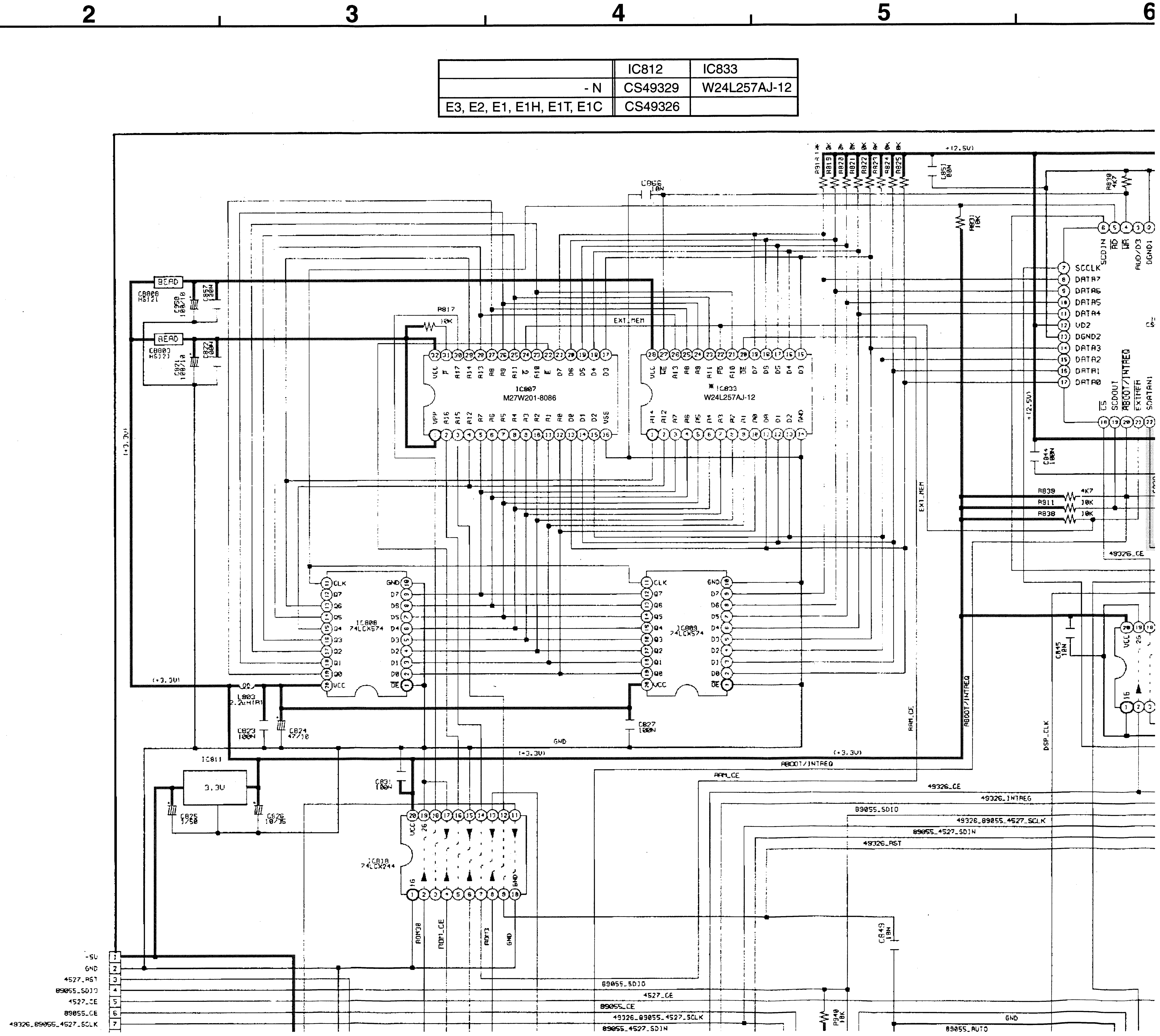
WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

——— + B LINE
– – – – – B LINE
▨ SIGNAL LINE

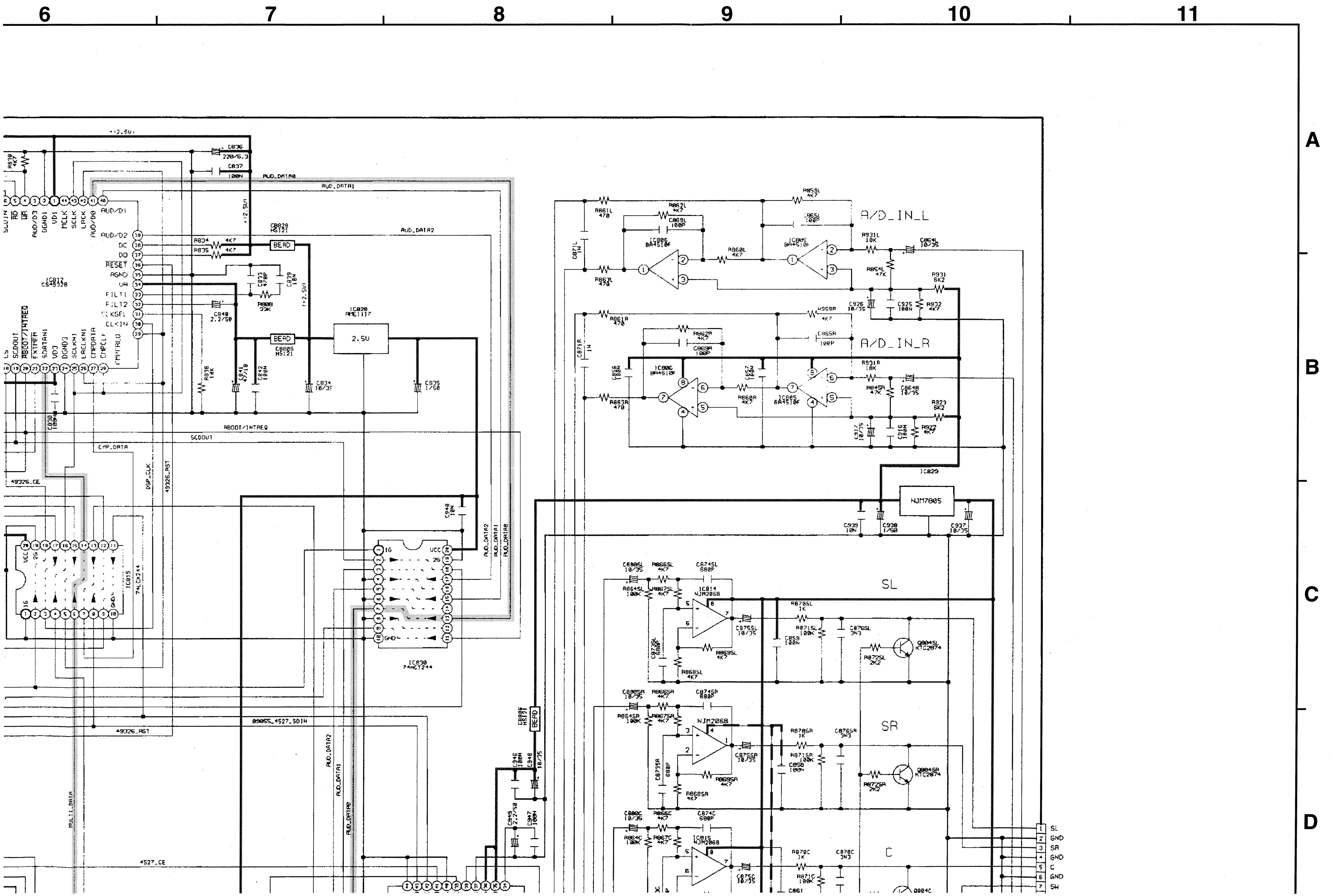
SCHEMATIC DIAGRAMS (2/8)
DSP UNIT

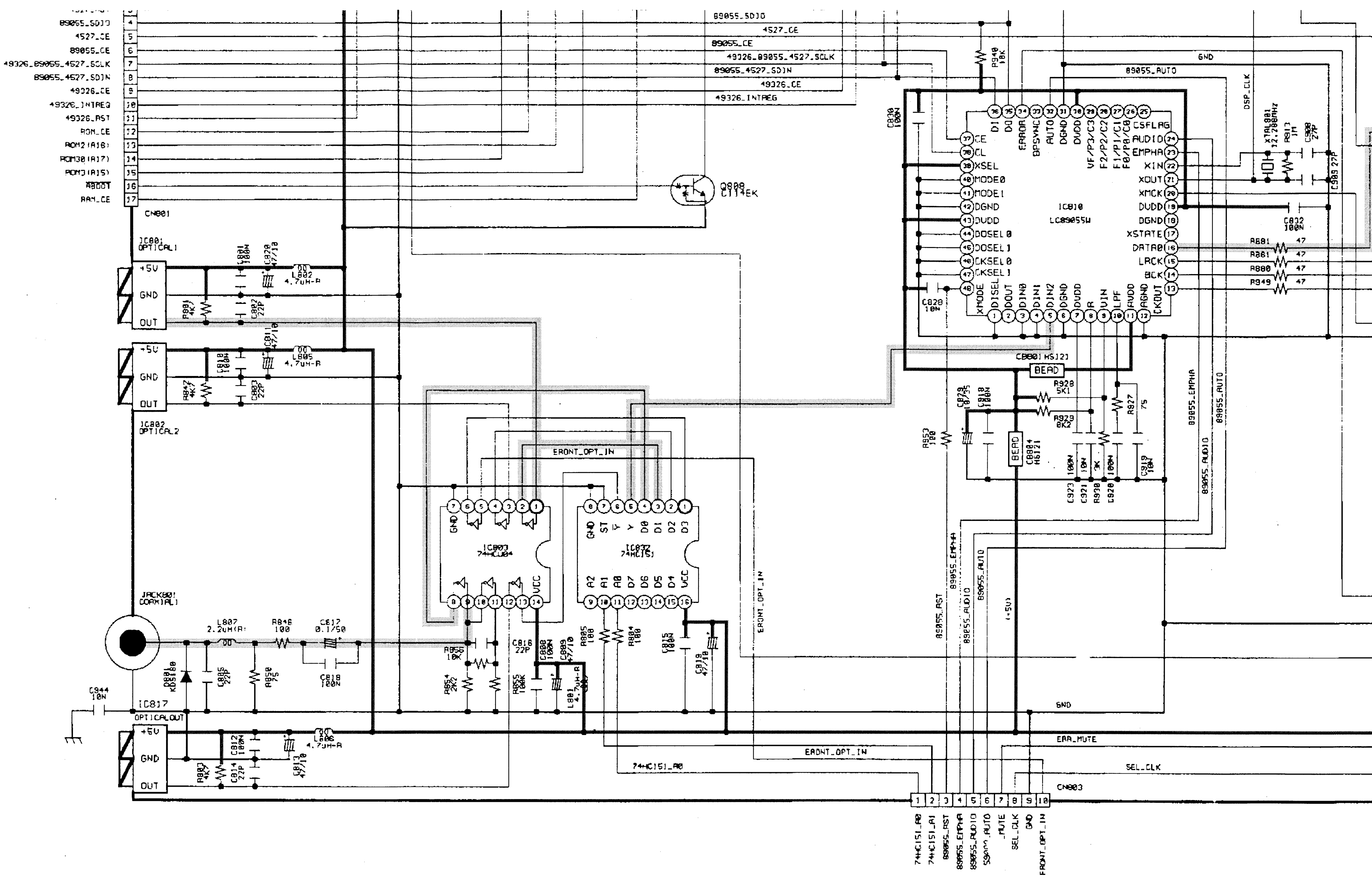
SCHEMATIC DIAGRAMS (2/8)

	IC812	IC833
- N	CS49329	W24L257AJ-12
E3, E2, E1, E1H, E1T, E1C	CS49326	



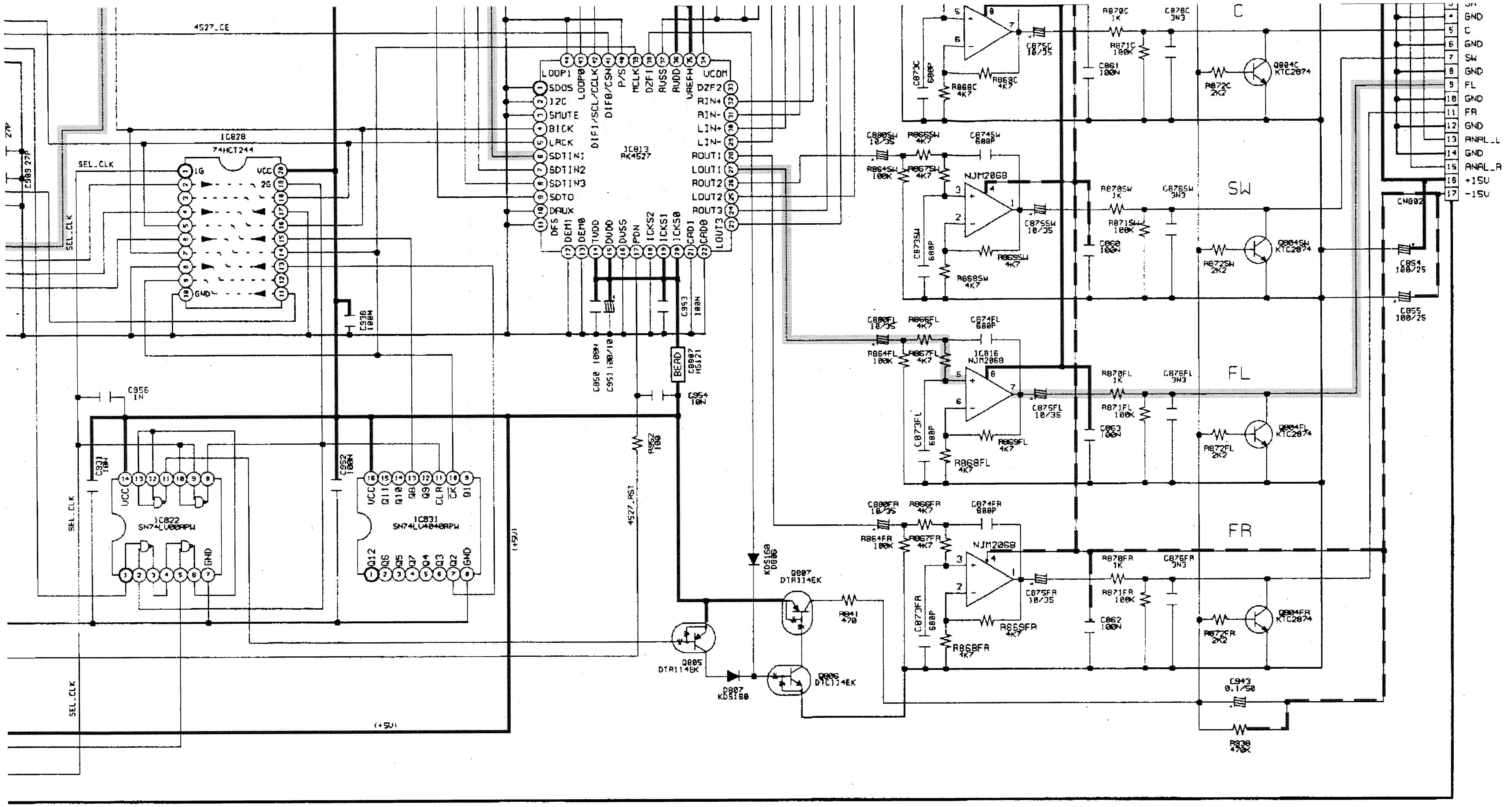
1
2
3
4
5
6
IC807
M27W201-8086
IC833
W24L257AJ-12
IC808
74LCX574
IC809
74LCX574
IC810
74LCX244
IC811
3.3V
R817
10K
EXT_MEM
C856
10N
BEAD
C800
MS121
C820
100/10
C801
C802
C821
100/10
L803
2.2uH(R1)
C823
100N
C824
47/10
C827
100N
C831
100N
C825
1/50
C826
10/35
C844
100N
C845
10N
C849
10N
C851
R839
4K7
R911
10K
R838
10K
R801
R818
R819
R820
R821
R822
R823
R824
R825
R940
10K
(+3.3V)
(+2.5V)
GND
ROM30
ROM_CE
ROM3
RAM_CE
ABOOT/INTREQ
DSP_CLK
SCCLK
DATA7
DATA6
DATA5
DATA4
VD2
DGND2
DATA3
DATA2
DATA1
DATA0
SCDIN
RD
WR
AVD/D3
DGND1
CS
SCDOUT
ABOOT/INTREQ
EXTMEM
SDATAN1
49326_CE
49326_INTREQ
89055_SDIO
49326_89055_4527_SCLK
89055_4527_SDIN
49326_RST
89055_SDIO
4527_CE
89055_CE
49326_89055_4527_SCLK
89055_4527_SDIN
89055_AUTO
-5V
GND
4527_RST
89055_SDIO
4527_CE
89055_CE
49326_89055_4527_SCLK


6
7
8
9
10
11
A
B
C
D
(+2.5V)
C836 220/6.3
C837 100N
AUD_DATA10
AUD_DATA1
AUD_DATA2
R830 4K7
SCDIN
RD
WR
AUD/D3
DGND1
VD1
MCLK
SCLK
LRCK
AUD/D0
AUD/D1
AUD/D2
DC
DO
RESET
AGND
VA
FILT1
FILT2
CLKSEL
CLKIN
IC812 CS49326
R834 4K7
R835 4K7
C8020 HS121
BEAD
C833 470P
C839 10N
R808 33K
C840 2.2/50
(+2.5V)
IC820 AME1117
2.5V
C8085 HS121
R836 10K
C841 47/10
C842 100N
C834 10/35
C835 1/50
CS
SCDOUT
ABOOT/INTREQ
EXTMEM
SDATAN1
VD3
DGND3
SCLKN1
LRCLKN1
CMPDATA
CMPCLK
CMPREQ
C838 100N
ABOOT/INTREQ
SCDOUT
CMP_DATA
DSP_CLK
49326_RST
49326_CE
VCC
2G
1G
GND
IC815 74LCX244
C948 10N
AUD_DATA2
AUD_DATA1
AUD_DATA0
IC830 74HCT244
89055_4527_SDIN
49326_RST
AUD_DATA2
AUD_DATA1
AUD_DATA0
MULTI_DATA
4527_CE
C8086 HS121
BEAD
C946 100N
C948 10/35
C949 2.2/50
C947 100N
R861L 470
R862L 4K7
C869L 100P
C871L 1N
R863L 470
IC806 BA4510F
R860L 4K7
IC805 BA4510F
R859L 4K7
C865L 100P
A/D_IN_L
R931L 10K
C864L 10/35
R854L 47K
R931 6K2
C926 10/35
C925 100N
R932 4K7
R861R 470
R862R 4K7
C869R 100P
C871R 1N
C856 100N
IC806 BA4510F
R863R 470
R860R 4K7
C857 100N
IC805 BA4510F
R859R 4K7
C865R 100P
A/D_IN_R
R931R 10K
R845R 47K
C864R 10/35
R923 6K2
C917 10/35
C916 100N
R922 4K7
IC829
NJM7805
C939 10N
C938 1/50
C937 10/35
C880SL 10/35
R866SL 4K7
C874SL 680P
R864SL 100K
R867SL 4K7
IC814 NJM2068
SL
C875SL 10/35
R870SL 1K
R871SL 100K
C876SL 3N3
C859 100N
C873SL 680P
R869SL 4K7
R868SL 4K7
R872SL 2K2
Q804SL KTC2874
C880SR 10/35
R866SR 4K7
C874SR 680P
R864SR 100K
R867SR 4K7
NJM2068
SR
C875SR 10/35
R870SR 1K
R871SR 100K
C876SR 3N3
C858 100N
C873SR 680P
R869SR 4K7
R868SR 4K7
R872SR 2K2
Q804SR KTC2874
C880C 10/35
R866C 4K7
C874C 680P
R864C 100K
R867C 4K7
IC815 NJM2068
C
R870C 1K
C878C 3N3
R871C 100K
C875C 10/35
C861
Q804C
SL
GND
SR
GND
C
GND
SW


89055_SDIO
4527_CE
89055_CE
49326_89055_4527_SCLK
89055_4527_SDIN
49326_CE
49326_INTREQ
49326_RST
ROM_CE
ROM2(A16)
ROM30(A17)
ROMJ(A15)
RBOOT
RAM_CE
CN801
IC801
OPTICAL1
+5V
GND
OUT
C801
100N
C820
47/10
L802
4.7uH-R
R801
4K7
C802
22P
C818
100N
C811
47/10
L805
4.7uH-R
R847
4K7
C803
22P
IC802
OPTICAL2
JACK801
COAXIAL1
L807
2.2uH(R)
R846
100
C817
0.1/50
C818
100N
D801
KDS160
C805
22P
R850
75
C844
10N
IC817
OPTICALOUT
C812
100N
C814
22P
R803
4K7
C813
47/10
L806
4.7uH-R
FRONT_OPT_IN
IC803
74HCU04
GND
VCC
R856
10K
R854
2K2
R855
100K
C816
22P
C808
100N
C809
47/10
L801
4.7uH-R
IC832
74HC151
GND
ST
Y
D0
D1
D2
D3
A2
A1
A0
D7
D6
D5
D4
VCC
R805
100
R804
100
C815
100N
C810
47/10
Q808
C114EK
R940
10K
C830
100N
GND
89055_AUTO
DSP_CLK
DI
DO
ERROR
BPSYNC
AUTO
DGND
DVDD
VF/P3/C3
F2/P2/C2
F1/P1/C1
F0/P0/C0
CSFLAG
CE
CL
XSEL
MODE0
MODE1
DGND
DVDD
DOSEL0
DOSEL1
CKSEL0
CKSEL1
XMODE
AUDIO
EMPHA
XIN
XOUT
XMCK
DVDD
DGND
XSTATE
DATA0
LRCK
BCK
CKOUT
IC810
LC89055W
DISEL
DOUT
DIN0
DIN1
DIN2
DGND
DVDD
R
VIN
LPF
AVDD
AGND
C828
10N
XTAL801
12.288MHz
R813
1M
C908
27P
C909 27P
C832
100N
R881
R861
R880
R949
47
CB801 HS121
BEAD
R928
5K1
R929
8K2
R927
75
C829
10/35
C918
100N
R853
100
CB804
HG121
C923
100N
C921
10N
R930
3K
C920
100N
C919
10N
89055_EMPHA
89055_AUTO
89055_AUDIO
89055_RST
(+5V)
GND
ERR_MUTE
SEL_CLK
74HC151_A0
CN803
74HC151_A0
74HC151_A1
89055_RST
89055_EMPHA
89055_AUDIO
59000_AUTO
_MUTE
SEL_CLK
GND
FRONT_OPT_IN

NOTICE

ALL RESISTANCE VAL
ALL CAPACITANCE VA
EACH VOLTAGE AND C
CONDITION.
CIRCUIT AND PARTS A
NOTICE.


4527_CE
IC828
74HCT244
SEL_CLK
C989 27P
IC813
AK4527
LOOP1
SDOS
I2C
SMUTE
BICK
LRCK
SDTIN1
SDTIN2
SDTIN3
SDTO
DAUX
DFS
DEM1
DEM0
TVDD
DVDD
DVSS
PDN
ICKS2
ICKS1
ICKS0
CAD1
CAD0
LOUT3
ROUT3
LOUT2
ROUT2
LOUT1
ROUT1
LIN-
LIN+
RIN-
RIN+
DZF2
VCOM
VREFH
AVDD
AVSS
DZF1
MCLK
P/S
DIF0/CSN
DIF1/SCL/CCLK
LOOP0
C936 100N
C950 100N
C951 100/10
C953 100N
BEAD
CB007 MS121
C954 10N
C956 1N
C837 10N
IC822
SN74LV00APW
C852 10N
IC831
SN74LV4040APW
VCC
GND
(+5V)
4527_RST
R852 100
KDS160
D806
Q807
DTA114EK
R841 470
Q805
DTA114EK
D807
KDS160
Q806
DTC114EK
C800SW 10/35
R866SW 4K7
C874SW 680P
R864SW 100K
R867SW 4K7
NJM2068
C875SW 10/35
C873SW 680P
R868SW 4K7
R869SW 4K7
R870SW 1K
C876SW 3N3
R871SW 100K
C860 100N
SW
R872SW 2K2
Q804SW KTC2874
C873C 680P
R868C 4K7
R869C 4K7
C875C 10/35
R870C 1K
C876C 3N3
R871C 100K
C861 100N
C
R872C 2K2
Q804C KTC2874
C800FL 10/35
R866FL 4K7
C874FL 680P
R864FL 100K
R867FL 4K7
IC816
NJM2068
C875FL 10/35
C873FL 680P
R868FL 4K7
R869FL 4K7
R870FL 1K
C876FL 3N3
R871FL 100K
C863 100N
FL
R872FL 2K2
Q804FL KTC2874
C800FR 10/35
R866FR 4K7
C874FR 680P
R864FR 100K
R867FR 4K7
NJM2068
C875FR 10/35
C873FR 680P
R868FR 4K7
R869FR 4K7
R870FR 1K
C876FR 3N3
R871FR 100K
C862 100N
FR
R872FR 2K2
Q804FR KTC2874
C943 0.1/50
R838 470K
CN802
C854 100/25
C855 100/25
4 GND
5 C
6 GND
7 SW
8 GND
9 FL
10 GND
11 FR
12 GND
13 ANAL_L
14 GND
15 ANAL_R
16 +15V
17 -15V
(+5V)
E
F
G
H

——— + B LINE

– – – – – B LINE

▨ SIGNAL LINE

CE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
NCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
E AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT

PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR

WARNING:

Parts marked with this symbol ⚠ ▢ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

CAUTION:

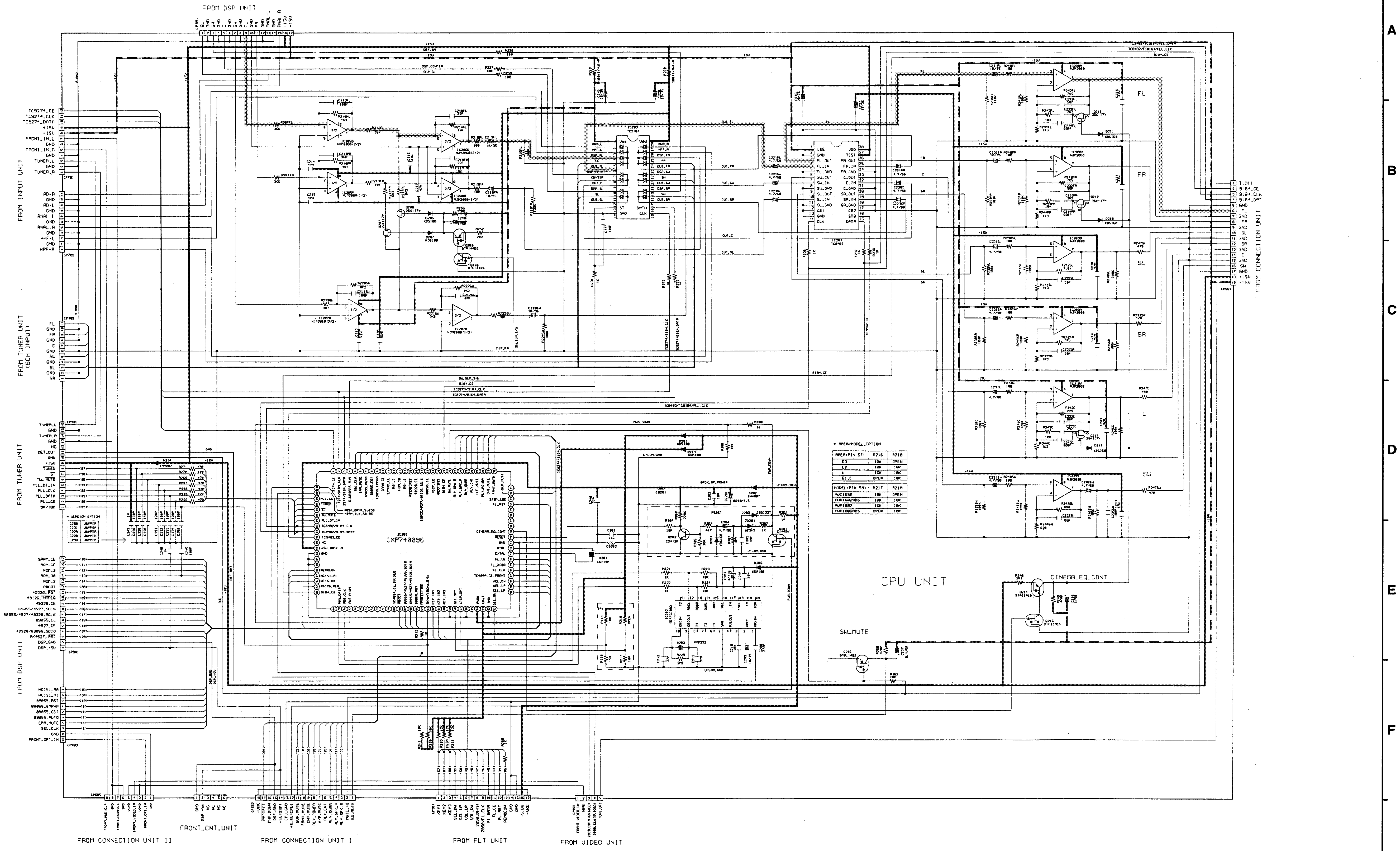
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

WARNING:

DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAMS (2/8)
DSP UNIT

SCHEMATIC DIAGRAMS (3/8)


FROM DSP UNIT
FROM INPUT UNIT
FROM TUNER UNIT (6CH INPUT)
FROM TUNER UNIT
FROM DSP UNIT
FROM CONNECTION UNIT II
FRONT_CNT_UNIT
FROM CONNECTION UNIT I
FROM FLT UNIT
FROM VIDEO UNIT
FROM CONNECTION UNIT
CXP740096
CPU UNIT
SW_MUTE
CINEMA_EQ_CONT
FL
FR
SL
SR
C
SW

* AREA/MODEL_OPTION

AREA(PIN 57)	R216	R218
E3	10K	OPEN
E2	10K	10K
N	15K	10K
E1,C	OPEN	10K

MODEL(PIN 58)	R217	R219
AVC1550	10K	OPEN
AVA1602RDS	10K	10K
AVA1802	15K	10K
AVA1802RDS	OPEN	10K

——— + B LINE
— — — — – B LINE
▨ SIGNAL LINE

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

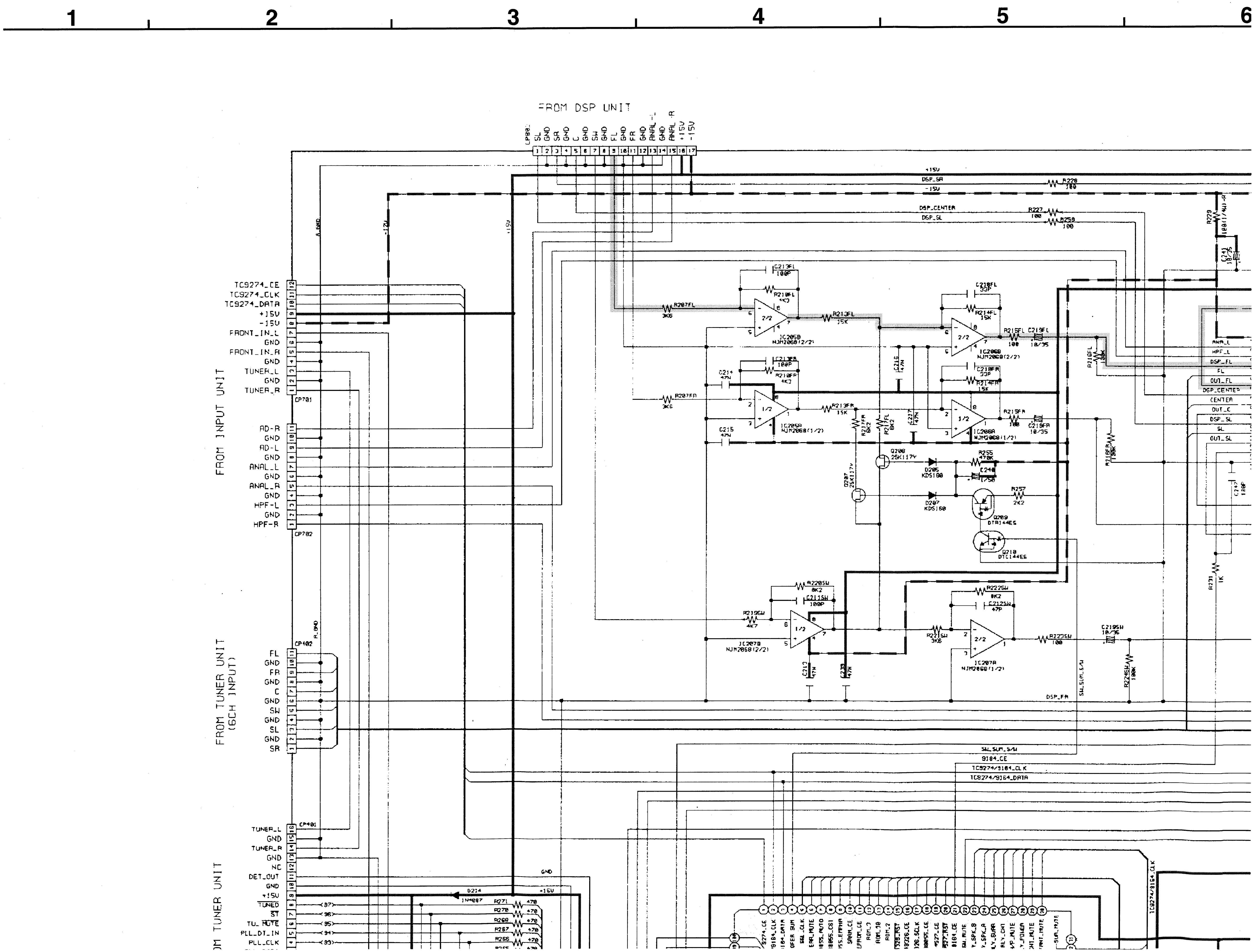
CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

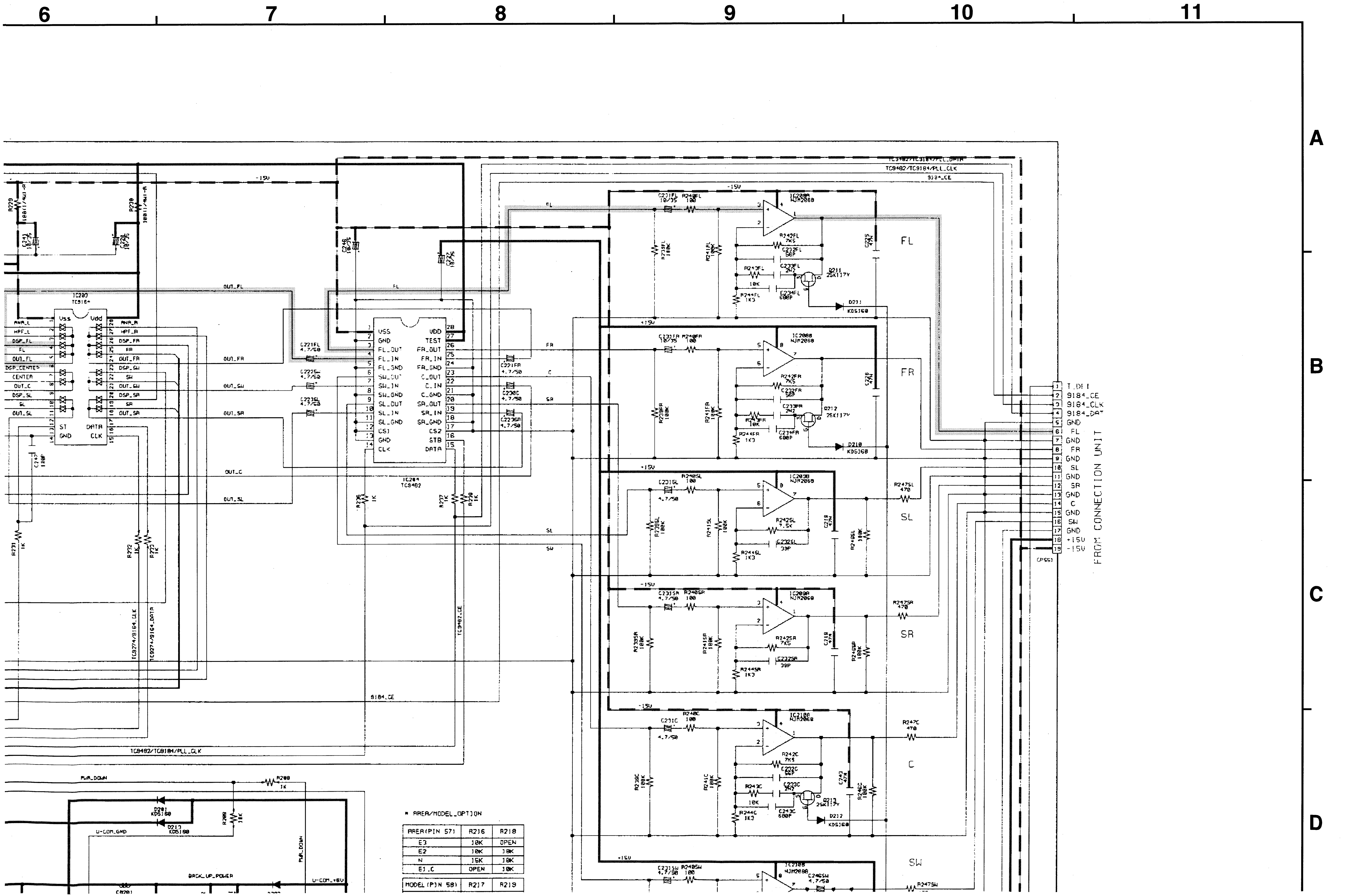
WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

NOTICE
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

SCHEMATIC DIAGRAMS (3/8)
CPU UNIT

SCHEMATIC DIAGRAMS (3/8)

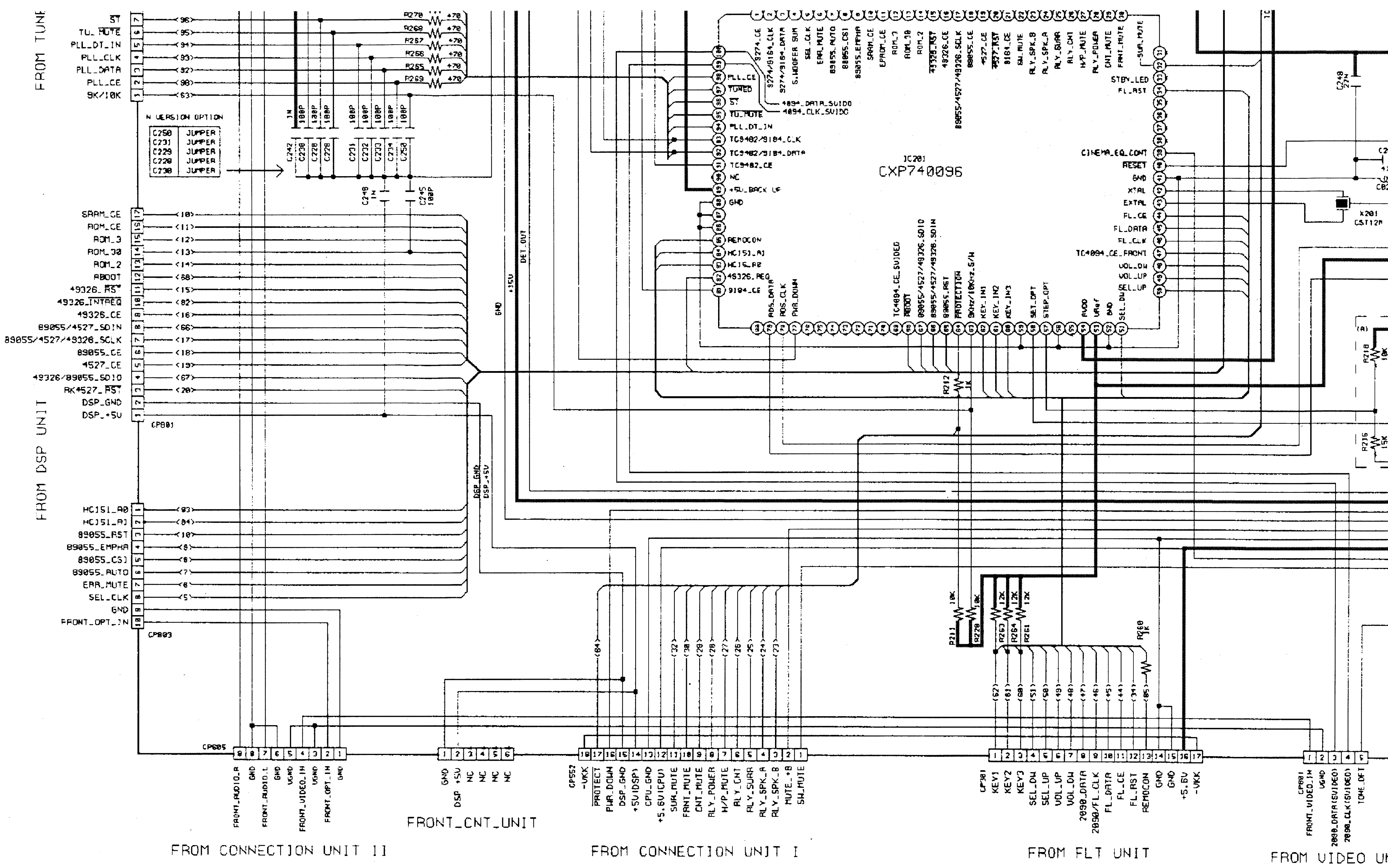

1
2
3
4
5
6
FROM DSP UNIT
CP802
SL
GND
SR
GND
C
GND
SW
GND
FL
GND
FR
GND
ANAL_L
GND
ANAL_R
+15V
-15V
+15V
DSP_SR
-15V
R228 100
DSP_CENTER
DSP_SL
R227 100
R250 100
R229
C241
A_GND
-12V
+15V
TC9274_CE
TC9274_CLK
TC9274_DATA
+15V
-15V
FRONT_IN_L
GND
FRONT_IN_R
GND
TUNER_L
GND
TUNER_R
CP701
AD-R
GND
AD-L
GND
ANAL_L
GND
ANAL_R
GND
HPF-L
GND
HPF-R
CP702
FROM INPUT UNIT
C213FL 100P
R210FL 4K7
R207FL 3K6
R213FL 15K
IC205B NJM2068(2/2)
C218FL 33P
R214FL 15K
R215FL 100
C219FL 10/35
IC206B NJM2068(2/2)
R216FL 30K
C213FR 100P
R210FR 4K7
C214 47N
R207FR 3K6
R213FR 15K
IC205A NJM2068(1/2)
C215 47N
C216 47N
C217 47N
R217FR 6K2
R217FL 6K2
C218FR 33P
R214FR 15K
R215FR 100
C219FR 10/35
IC206A NJM2068(1/2)
R216FR 100K
Q208 2SK117Y
Q207 2SK117Y
D205 KDS160
D207 KDS160
R255 470K
C240 1/50
R257 2K2
Q209 DTA144ES
Q210 DTC144ES
ANA_L
HPF_L
DSP_FL
FL
OUT_FL
DSP_CENTER
CENTER
OUT_C
DSP_SL
SL
OUT_SL
C242 100P
R231 1K
R220SW 8K2
C211SW 100P
R219SW 4K7
IC207B NJM2068(2/2)
C212 47N
C239 47N
R222SW 8K2
C212SW 47P
R221SW 3K6
IC207A NJM2068(1/2)
R223SW 100
C219SW 10/35
R224SW 100K
SW_SUM_S/W
DSP_FR
A_GND
CP402
FL
GND
FR
GND
C
GND
SW
GND
SL
GND
SR
FROM TUNER UNIT (6CH INPUT)
SW_SUM_S/W
9164_CE
TC9274/9164_CLK
TC9274/9164_DATA
CP401
TUNER_L
GND
TUNER_R
GND
NC
DET_OUT
GND
+15V
TUNED
ST
TU_MUTE
PLL_DI_IN
PLL_CLK
OM TUNER UNIT
GND
D214 1N4007
+15V
R271 470
R270 470
R268 470
R267 470
R266 470
R265 470
TC9274/9164_CLK


6
7
8
9
10
11
A
B
C
D
-15V
R229 100(1/4W)-R
R230 100(1/4W)-R
C241 10/35
C220 10/35
C246 10/35
C222 10/35
IC203
TC9164
Vss
Vdd
ANA_L
HPF_L
DSP_FL
FL
OUT_FL
DSP_CENTER
CENTER
OUT_C
DSP_SL
SL
OUT_SL
ST
GND
DATA
CLK
ANA_R
HPF_R
DSP_FR
FR
OUT_FR
DSP_SW
SW
OUT_SW
DSP_SR
SR
OUT_SR
C247 100P
R231 1K
R232 1K
R222 1K
OUT_FL
OUT_FR
OUT_SW
OUT_SR
OUT_C
OUT_SL
C221FL 4.7/50
C222SW 4.7/50
C223SL 4.7/50
IC204
TC9482
VSS
GND
FL_OUT
FL_IN
FL_GND
SW_OUT
SW_IN
SW_GND
SL_OUT
SL_IN
SL_GND
CS1
GND
CLK
VDD
TEST
FR_OUT
FR_IN
FR_GND
C_OUT
C_IN
C_GND
SR_OUT
SR_IN
SR_GND
CS2
STB
DATA
R236 1K
R237 1K
R238 1K
C221FR 4.7/50
C230C 4.7/50
C223SR 4.7/50
TC9274/9164_CLK
TC9274/9164_DATA
TC9482_CE
9184_CE
TC9482/TC9184/PLL_CLK
TC9482/TC9184/PLL_DATA
TC9482/TC9184/PLL_CLK
9184_CE
FL
FR
C
SR
SL
SW
-15V
+15V
C231FL 10/35
R240FL 100
R239FL 100K
R241FL 100K
IC208A NJM2068
R242FL 7K5
C232FL 56P
R243FL 10K
C233FL 2N2
Q211 2SK117Y
R244FL 1K3
C234FL 680P
D211 KDS160
C225 47N
FL
C231FR 10/35
R240FR 100
IC208B NJM2068
R239FR 100K
R241FR 100K
R242FR 7K5
C232FR 56P
R243FR 10K
C233FR 2N2
Q212 2SK117Y
R244FR 1K3
C234FR 680P
D210 KDS160
C226 47N
FR
C231SL 4.7/50
R240SL 100
IC209B NJM2068
R239SL 100K
R241SL 100K
R242SL 7.5K
C232SL 39P
R244SL 1K3
C218 47N
R246SL 100K
R247SL 470
SL
C231SR 4.7/50
R240SR 100
IC209A NJM2068
R239SR 100K
R241SR 100K
R242SR 7K5
C232SR 39P
R244SR 1K3
C219 47N
R246SR 100K
R247SR 470
SR
C231C 4.7/50
R240C 100
IC210A NJM2068
R239C 100K
R241C 100K
R242C 7K5
C232C 56P
R243C 10K
C233C 2N2
Q213 2SK117Y
R244C 1K3
C243C 680P
D212 KDS160
C243 47N
R246C 100K
R247C 470
C
SW
C231SW 4.7/50
R240SW 100
IC210B NJM2068
C246SW 4.7/50
R247SW
1 T.DI I
2 9184_CE
3 9184_CLK
4 9184_DAT
5 GND
6 FL
7 GND
8 FR
9 GND
10 SL
11 GND
12 SR
13 GND
14 C
15 GND
16 SW
17 GND
18 +15V
19 -15V
CP551
FROM CONNECTION UNIT
PWR_DOWN
R208 1K
R209 10K
D201 KDS160
D213 KDS160
U-COM_GND
PWR_DOWN
BACK_UP_POWER
U-COM_+5V
C8201

* AREA/MODEL_OPTION

AREA(PIN 57)	R216	R218
E3	10K	OPEN
E2	10K	10K
N	15K	10K
E1,C	OPEN	10K

MODEL(PIN 58)	R217	R219


FROM TUNE
ST
TU_MUTE
PLL_DT_IN
PLL_CLK
PLL_DATA
PLL_CE
9K/10K
N VERSION OPTION
C250 JUMPER
C231 JUMPER
C229 JUMPER
C228 JUMPER
C230 JUMPER
FROM DSP UNIT
SRAM_CE
ROM_CE
ROM_3
ROM_30
ROM_2
ABOOT
49326_RST
49326_INTREQ
49326_CE
89055/4527_SDIN
89055/4527/49326_SCLK
89055_CE
4527_CE
49326/89055_SDIO
AK4527_RST
DSP_GND
DSP_+5V
CP801
HC151_A0
HC151_A1
89055_RST
89055_EMPHA
89055_CS1
89055_AUTO
ERR_MUTE
SEL_CLK
GND
FRONT_OPT_IN
CP803
IC201
CXP740096
STBY_LED
FL_RST
CINEMA_EQ_CONT
RESET
GND
XTAL
EXTAL
FL_CE
FL_DATA
FL_CLK
TC4094_CE_FRONT
VOL_DW
VOL_UP
SEL_DW
SEL_UP
X201
CST12M
R212 1K
R211 10K
R270 10K
R263 12K
R264 12K
R261 12K
R260 1K
CP605
FRONT_AUDIO_R
GND
FRONT_AUDIO_L
GND
VGND
FRONT_VIDEO_IN
VGND
FRONT_OPT_IN
GND
FROM CONNECTION UNIT II
GND
DSP +5V
NC
NC
NC
NC
FRONT_CNT_UNIT
CP552
-VKK
PROTECT
PWR_DOWN
DSP_GND
+5V(DSP)
CPU_GND
+5.6V(CPU)
SUR_MUTE
FRNT_MUTE
CNT_MUTE
RLY_POWER
H/P_MUTE
RLY_CNT
RLY_SURR
RLY_SPK_A
RLY_SPK_B
MUTE_+B
SW_MUTE
FROM CONNECTION UNIT I
CP301
KEY1
KEY2
KEY3
SEL_DW
SEL_UP
VOL_UP
VOL_DW
2090_DATA
2090/FL_CLK
FL_DATA
FL_CE
FL_RST
REMOCON
GND
GND
+5.6V
-VKK
FROM FLT UNIT
CP881
FRONT_VIDEO_IN
VGND
2090_DATA(SVIDEO)
2090_CLK(SVIDEO)
TONE_DET
FROM VIDEO U

NOTICE

ALL RESISTANCE VAL

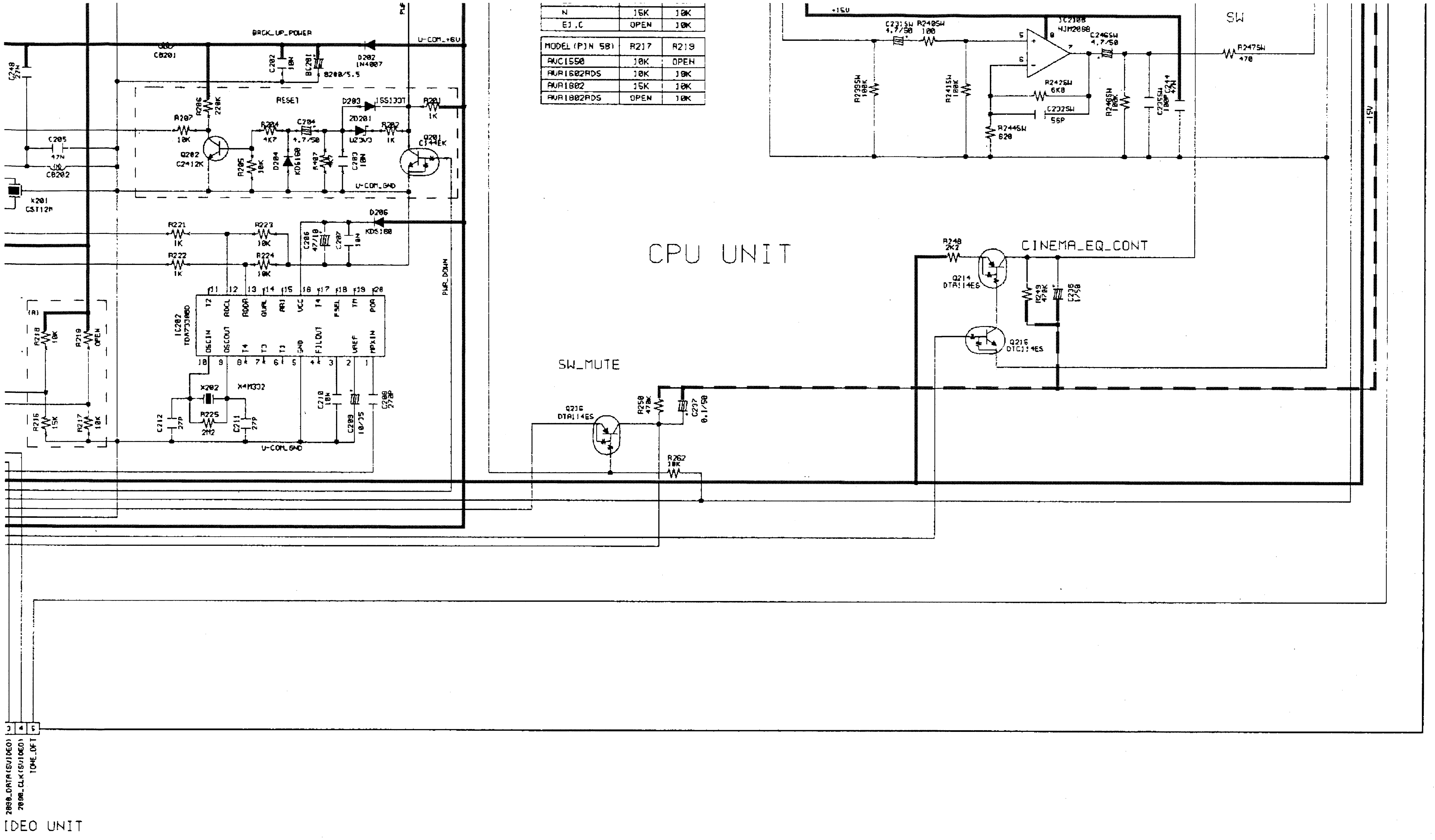
ALL CAPACITANCE VA

EACH VOLTAGE AND C

CONDITION.

CIRCUIT AND PARTS A

NOTICE.



BACK_UP_POWER
U-COM_+6V
RESET
CPU UNIT
CINEMA_EQ_CONT
SW_MUTE
SW
+15V
-15V
IC208
NJM2068
IC202
TDA7330BD
Q202
Q201
Q214
DTA114ES
Q215
DTC114ES
Q216
DTA114ES
D202
1N4007
D203
1SS133
D206
KDS160
ZD201
X202
X4M332
X201
CST12M
U-COM_GND
PWR_DOWN
2090_DATA(SVIDEO)
2090_CLK(SVIDEO)
TONE_DFT
IDEO UNIT

N	15K	10K
EJ,C	OPEN	10K

MODEL(PIN 58)	R217	R219
AVC1550	10K	OPEN
AVR1602RDS	10K	10K
AVR1802	15K	10K
AVR1802RDS	OPEN	10K

——————— + B LINE

— — — — — – B LINE

▨ SIGNAL LINE

E

F

G

H

E VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM

NCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

E AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT

ARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR

WARNING:

Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

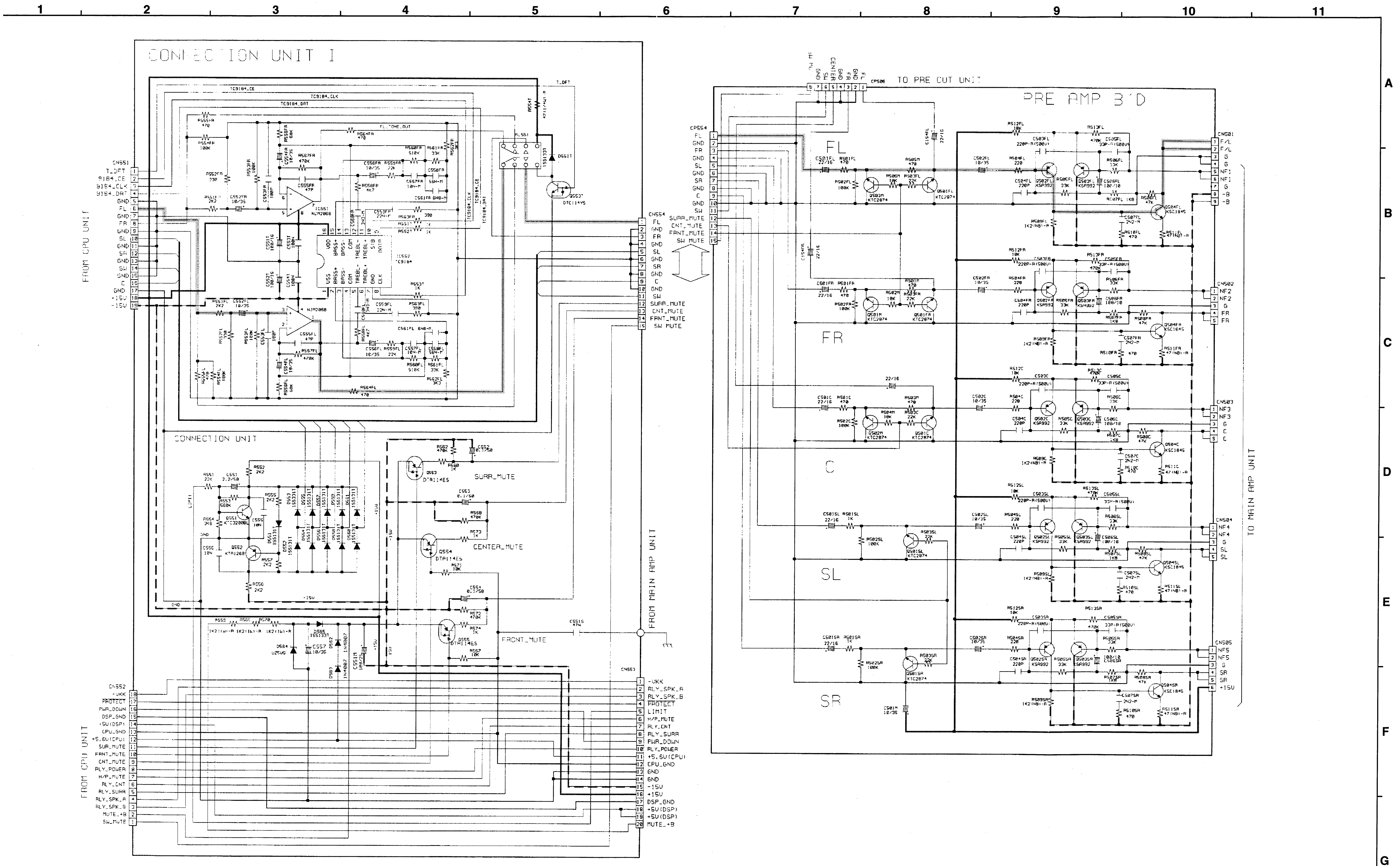
WARNING:

DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAMS (3/8)

CPU UNIT

SCHEMATIC DIAGRAMS (4/8)


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
CONNECTION UNIT I
CN551
T_DFT
9184_CE
9184_CLK
9184_DAT
GND
FL
GND
FR
GND
SL
GND
SR
GND
SW
GND
C
GND
+15V
-15V
FROM CPU UNIT
TC9184_CE
TC9184_CLK
TC9184_DAT
FL_TONE_OUT
IC551 NJM2068
IC552 TC9184
NJM2068
RL551
D5511
Q5537 DTC114YS
CN554
FL
GND
FR
GND
SL
GND
SR
GND
C
GND
SW
SURR_MUTE
CNT_MUTE
FRNT_MUTE
SW MUTE
CONNECTION UNIT
Q551 KTC3200BL
Q552 KTA1268
Q553 DTA114ES
SURR_MUTE
Q554 DTA114ES
CENTER_MUTE
Q555 DTA114ES
FRONT_MUTE
FROM MAIN AMP UNIT
CN552
-VKK
PROTECT
PWR_DOWN
DSP_GND
+5V(DSP)
CPU_GND
+5.6V(CPU)
SUR_MUTE
FRNT_MUTE
CNT_MUTE
RLY_POWER
H/P_MUTE
RLY_CNT
RLY_SURR
RLY_SPK_A
RLY_SPK_B
MUTE_+B
SW_MUTE
FROM CPU UNIT
CN553
-VKK
RLY_SPK_A
RLY_SPK_B
PROTECT
LIMIT
H/P_MUTE
RLY_CNT
RLY_SURR
PWR_DOWN
RLY_POWER
+5.6V(CPU)
CPU_GND
GND
GND
+15V
+15V
DSP_GND
+5V(DSP)
+5V(DSP)
MUTE_+B
CP506
TO PRE CUT UNIT
FL
GND
FR
GND
CENTER
SW
H/P MU
PRE AMP B'D
CP554
FL
GND
FR
GND
SL
GND
SR
GND
C
GND
SW
FL
FR
C
SL
SR
CN501
F/L
F/L
G
G
NF1
NF1
G
-B
-B
CN502
NF2
NF2
G
FR
FR
CN503
NF3
NF3
G
C
C
CN504
NF4
NF4
G
SL
SL
CN505
NF5
NF5
G
SR
SR
+15V
TO MAIN AMP UNIT
KTC2874
KSA992
KSC1845

——— + B LINE

– – – – – B LINE

▨ SIGNAL LINE

NOTICE
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:
Parts marked with this symbol ⚠ ▭ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

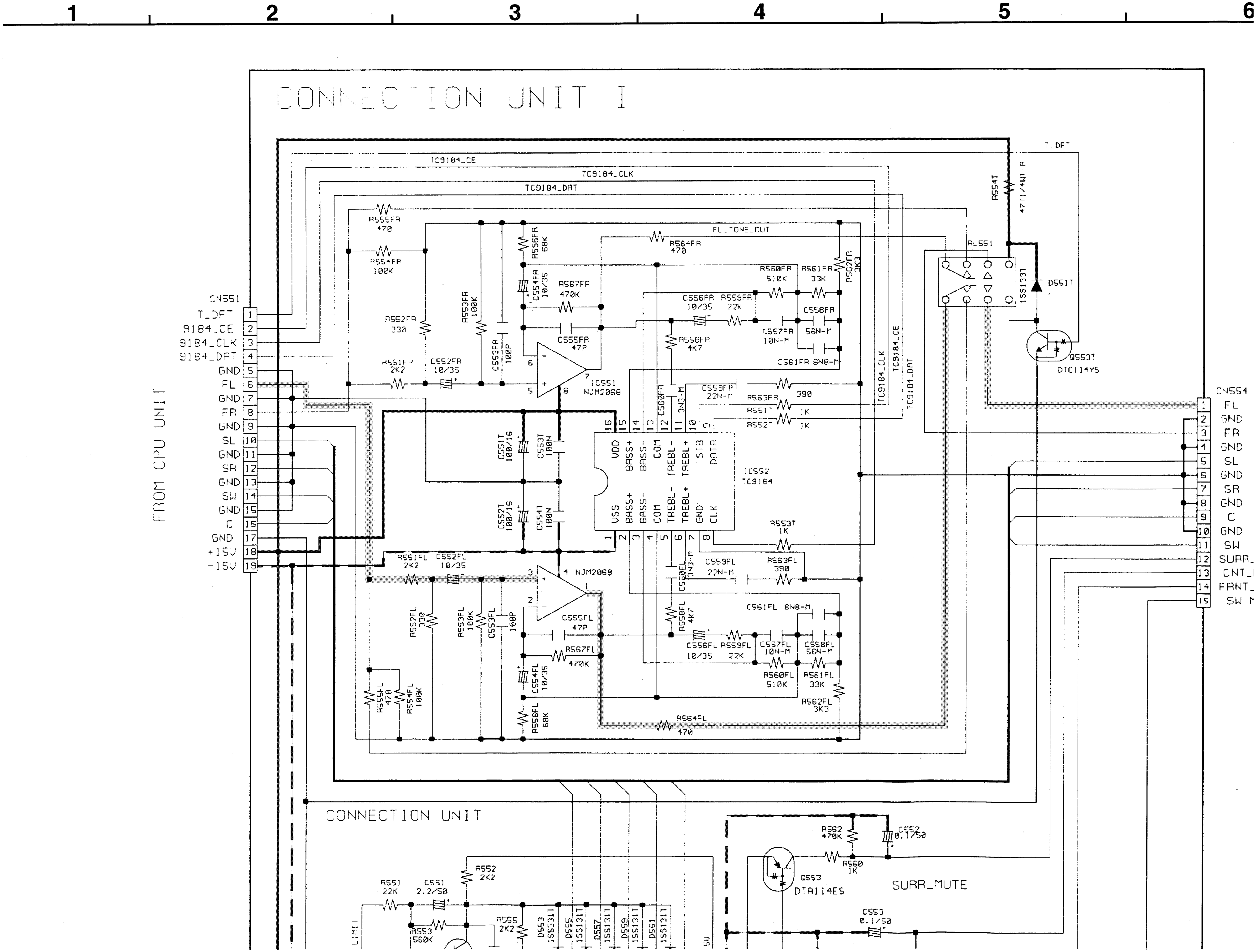
CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

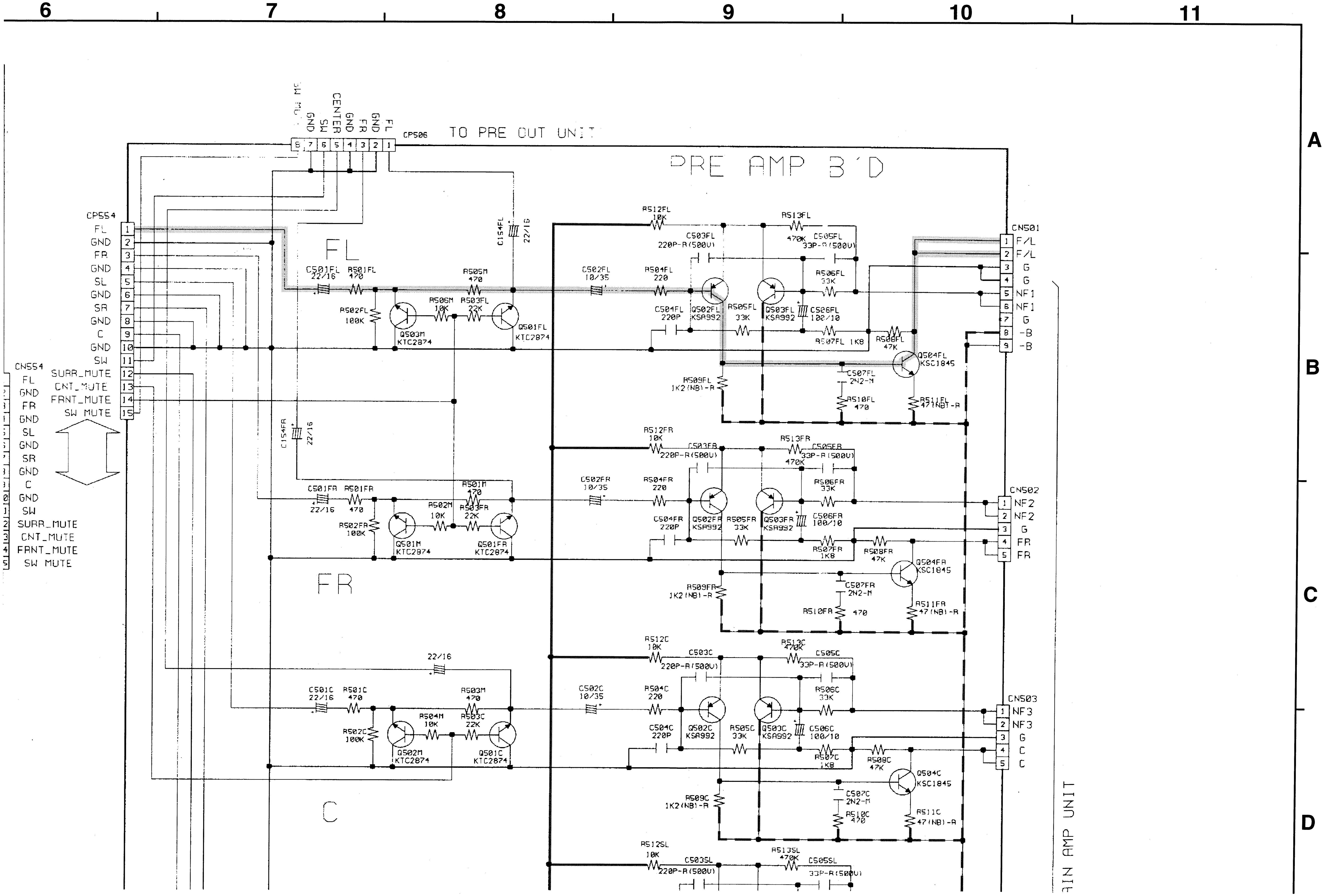
WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

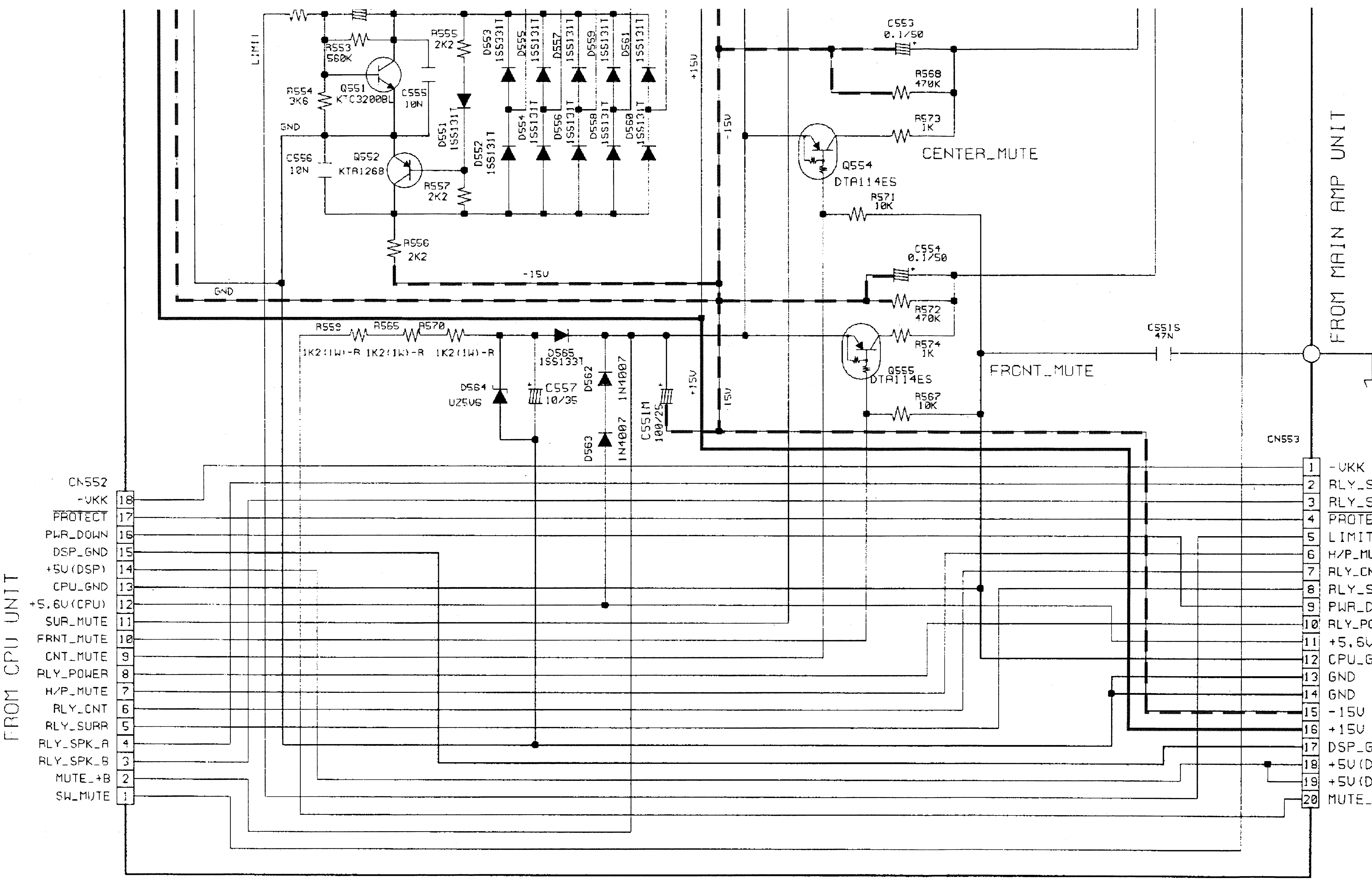
H

SCHEMATIC DIAGRAMS (4/8)
CNT UNIT
PRE-AMP UNIT

SCHEMATIC DIAGRAMS (4/8)


1
2
3
4
5
6
CONNECTION UNIT I
FROM CPU UNIT
CN551
T_DFT 1
9184_CE 2
9184_CLK 3
9184_DAT 4
GND 5
FL 6
GND 7
FR 8
GND 9
SL 10
GND 11
SR 12
GND 13
SW 14
GND 15
C 16
GND 17
+15V 18
-15V 19
TC9184_CE
TC9184_CLK
TC9184_DAT
T_DFT
FL_TONE_OUT
R555FR 470
R554FR 100K
R552FR 330
R553FR 100K
C553FR 100P
R551FR 2K2
C552FR 10/35
R556FR 68K
C554FR 10/35
R567FR 470K
C555FR 47P
IC551 NJM2068
R564FR 470
R560FR 510K
R561FR 33K
R562FR 3K3
C556FR 10/35
R559FR 22K
C558FR 56N-M
C557FR 10N-M
R558FR 4K7
C561FR 6N8-M
C559FR 22N-M
R563FR 390
R551T 1K
R552T 1K
C560FR 3N3-M
C551T 100/16
C553T 100N
C552T 100/16
C554T 100N
IC552 TC9184
VDD
BASS+
BASS-
COM
TREBL-
TREBL+
SIB
DATA
VSS
GND
CLK
R553T 1K
R551FL 2K2
C552FL 10/35
NJM2068
R552FL 330
R553FL 100K
C553FL 100P
C555FL 47P
R567FL 470K
C554FL 10/35
R556FL 68K
R555FL 470
R554FL 100K
C559FL 22N-M
R563FL 390
C560FL 3N3-M
R558FL 4K7
C561FL 6N8-M
C556FL 10/35
R559FL 22K
C557FL 10N-M
C558FL 56N-M
R560FL 510K
R561FL 33K
R562FL 3K3
R564FL 470
R554T 47(1/4W)-R
RL551
1SS133T
D551T
Q553T
DTC114YS
CN554
FL 1
GND 2
FR 3
GND 4
SL 5
GND 6
SR 7
GND 8
C 9
GND 10
SW 11
SURR_ 12
CNT_ 13
FRNT_ 14
SW M 15
CONNECTION UNIT
R551 22K
C551 2.2/50
R552 2K2
R553 560K
R555 2K2
D553 1SS133T
D555 1SS133T
D557 1SS133T
D559 1SS133T
D561 1SS133T
LIMIT
SW
R562 470K
C552 0.1/50
R560 1K
Q553
DTA114ES
SURR_MUTE
C553 0.1/50


6
7
8
9
10
11
A
B
C
D
TO PRE OUT UNIT
CP506
FL
GND
FR
GND
CENTER
SW
GND
SW MUTE
PRE AMP B'D
CP554
FL
GND
FR
GND
SL
GND
SR
GND
C
GND
SW
SURR_MUTE
CNT_MUTE
FRNT_MUTE
SW MUTE
CN554
FL
GND
FR
GND
SL
GND
SR
GND
C
GND
SW
SURR_MUTE
CNT_MUTE
FRNT_MUTE
SW MUTE
FL
C154FL 22/16
C501FL 22/16
R501FL 470
R502FL 100K
Q503M KTC2874
R506M 10K
R505M 470
R503FL 22K
Q501FL KTC2874
C502FL 10/35
R512FL 10K
C503FL 220P-R(500V)
R504FL 220
C504FL 220P
Q502FL KSA992
R505FL 33K
R513FL 470K
C505FL 33P-R(500V)
Q503FL KSA992
C506FL 100/10
R506FL 33K
R507FL 1K8
R508FL 47K
Q504FL KSC1845
C507FL 2N2-M
R509FL 1K2(NB)-R
R510FL 470
R511FL 47(NB)-R
CN501
F/L
F/L
G
G
NF1
NF1
G
-B
-B
C154FR 22/16
C501FR 22/16
R501FR 470
R502FR 100K
Q501M KTC2874
R502M 10K
R501M 470
R503FR 22K
Q501FR KTC2874
FR
C502FR 10/35
R512FR 10K
C503FR 220P-R(500V)
R504FR 220
C504FR 220P
Q502FR KSA992
R505FR 33K
R513FR 470K
C505FR 33P-R(500V)
Q503FR KSA992
C506FR 100/10
R506FR 33K
R507FR 1K8
R508FR 47K
Q504FR KSC1845
C507FR 2N2-M
R509FR 1K2(NB)-R
R510FR 470
R511FR 47(NB)-R
CN502
NF2
NF2
G
FR
FR
22/16
C501C 22/16
R501C 470
R502C 100K
Q502M KTC2874
R504M 10K
R503M 470
R503C 22K
Q501C KTC2874
C
C502C 10/35
R512C 10K
C503C 220P-R(500V)
R504C 220
C504C 220P
Q502C KSA992
R505C 33K
R513C 470K
C505C 33P-R(500V)
Q503C KSA992
C506C 100/10
R506C 33K
R507C 1K8
R508C 47K
Q504C KSC1845
C507C 2N2-M
R509C 1K2(NB)-R
R510C 470
R511C 47(NB)-R
CN503
NF3
NF3
G
C
C
R512SL 10K
C503SL 220P-R(500V)
R513SL 470K
C505SL 33P-R(500V)
AIN AMP UNIT


LIMIT
R553
560K
R554
3K6
Q551
KTC3200BL
C555
10N
GND
C556
10N
Q552
KTA1268
R555
2K2
R557
2K2
R556
2K2
D551
1SS131T
D552
1SS131T
D553
1SS131T
D554
1SS131T
D555
1SS131T
D556
1SS131T
D557
1SS131T
D558
1SS131T
D559
1SS131T
D560
1SS131T
D561
1SS131T
-15V
+15V
GND
C553
0.1/50
R568
470K
R573
1K
CENTER_MUTE
Q554
DTA114ES
R571
10K
C554
0.1/50
R572
470K
R574
1K
Q555
DTA114ES
R567
10K
FRONT_MUTE
C551S
47N
R559
R565
R570
1K2(1W)-R
1K2(1W)-R
1K2(1W)-R
D565
1SS133T
D564
UZ5V6
C557
10/35
D562
1N4007
D563
1N4007
C551M
100/25
CN552
-VKK 18
PROTECT 17
PWR_DOWN 16
DSP_GND 15
+5V(DSP) 14
CPU_GND 13
+5.6V(CPU) 12
SUR_MUTE 11
FRNT_MUTE 10
CNT_MUTE 9
RLY_POWER 8
H/P_MUTE 7
RLY_CNT 6
RLY_SURR 5
RLY_SPK_A 4
RLY_SPK_B 3
MUTE_+B 2
SW_MUTE 1
FROM CPU UNIT
CN553
1 -VKK
2 RLY_S
3 RLY_S
4 PROTE
5 LIMIT
6 H/P_MU
7 RLY_CN
8 RLY_S
9 PWR_D
10 RLY_PO
11 +5.6V
12 CPU_G
13 GND
14 GND
15 -15V
16 +15V
17 DSP_G
18 +5V(D
19 +5V(D
20 MUTE_
FROM MAIN AMP UNIT

NOTICE

ALL RESISTANCE VAL

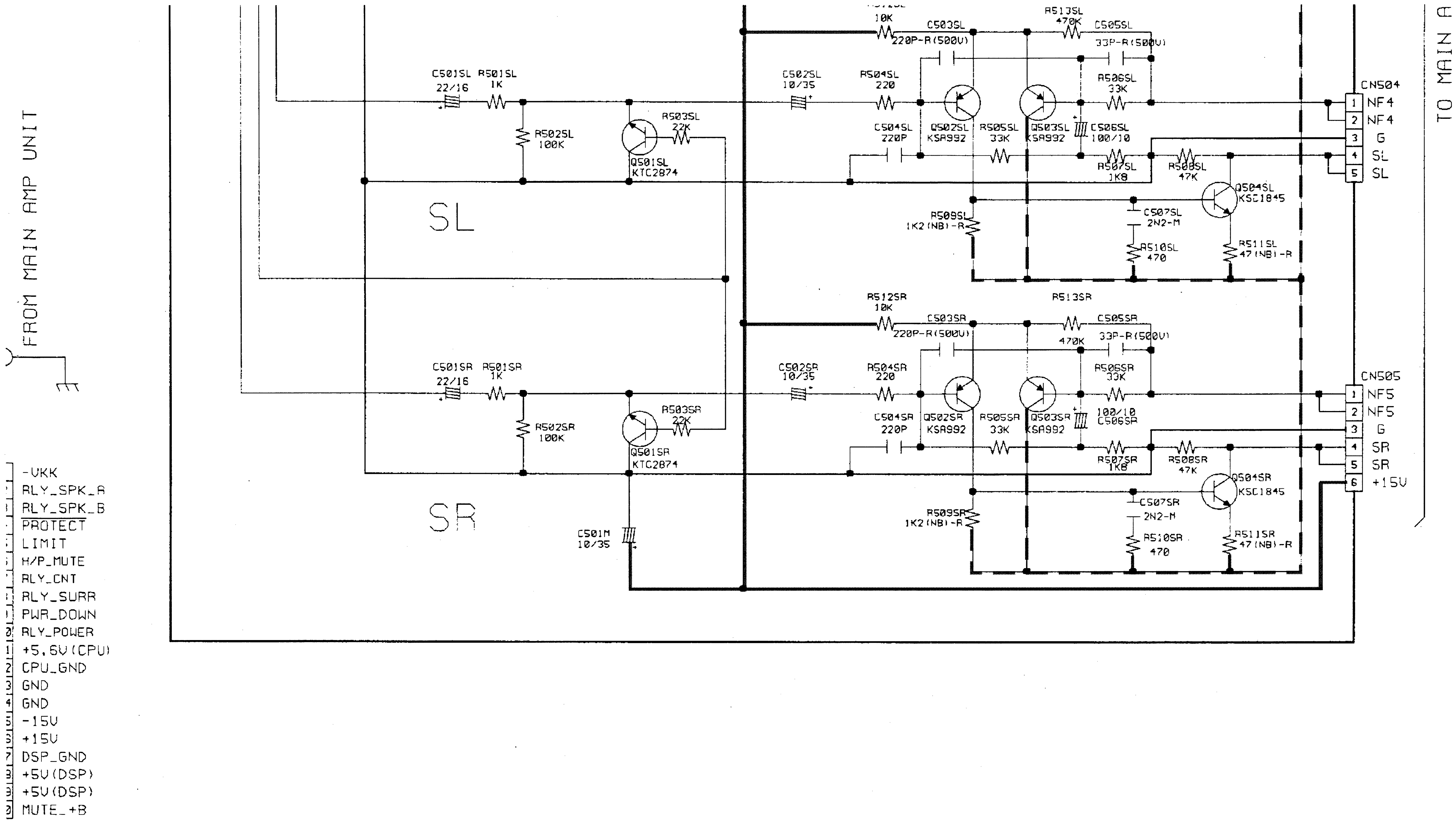
ALL CAPACITANCE VA

EACH VOLTAGE AND

CONDITION.

CIRCUIT AND PARTS

NOTICE.


FROM MAIN AMP UNIT
TO MAIN A
SL
SR
C501SL 22/16
R501SL 1K
R502SL 100K
R503SL 22K
Q501SL KTC2874
C502SL 10/35
R504SL 220
C504SL 220P
Q502SL KSA992
R505SL 33K
Q503SL KSA992
C506SL 100/10
R506SL 33K
R507SL 1K8
R508SL 47K
Q504SL KSC1845
C507SL 2N2-M
R509SL 1K2(NB)-R
R510SL 470
R511SL 47(NB)-R
10K
C503SL 220P-R(500V)
R513SL 470K
C505SL 33P-R(500V)
CN504
1 NF4
2 NF4
3 G
4 SL
5 SL
C501SR 22/16
R501SR 1K
R502SR 100K
R503SR 22K
Q501SR KTC2874
C502SR 10/35
R504SR 220
C504SR 220P
Q502SR KSA992
R505SR 33K
Q503SR KSA992
100/10 C506SR
R506SR 33K
R507SR 1K8
R508SR 47K
Q504SR KSC1845
C507SR 2N2-M
R509SR 1K2(NB)-R
R510SR 470
R511SR 47(NB)-R
R512SR 10K
C503SR 220P-R(500V)
R513SR 470K
C505SR 33P-R(500V)
C501M 10/35
CN505
1 NF5
2 NF5
3 G
4 SR
5 SR
6 +15V
-VKK
RLY_SPK_A
RLY_SPK_B
PROTECT
LIMIT
H/P_MUTE
RLY_CNT
RLY_SURR
PWR_DOWN
RLY_POWER
+5.6V(CPU)
CPU_GND
GND
GND
-15V
+15V
DSP_GND
+5V(DSP)
+5V(DSP)
MUTE_+B

E

F

G

H

——— + B LINE

– – – – – B LINE

▨ SIGNAL LINE

CE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
NCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
E AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT

?ARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR

WARNING:

Parts marked with this symbol ⚠ ▭ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

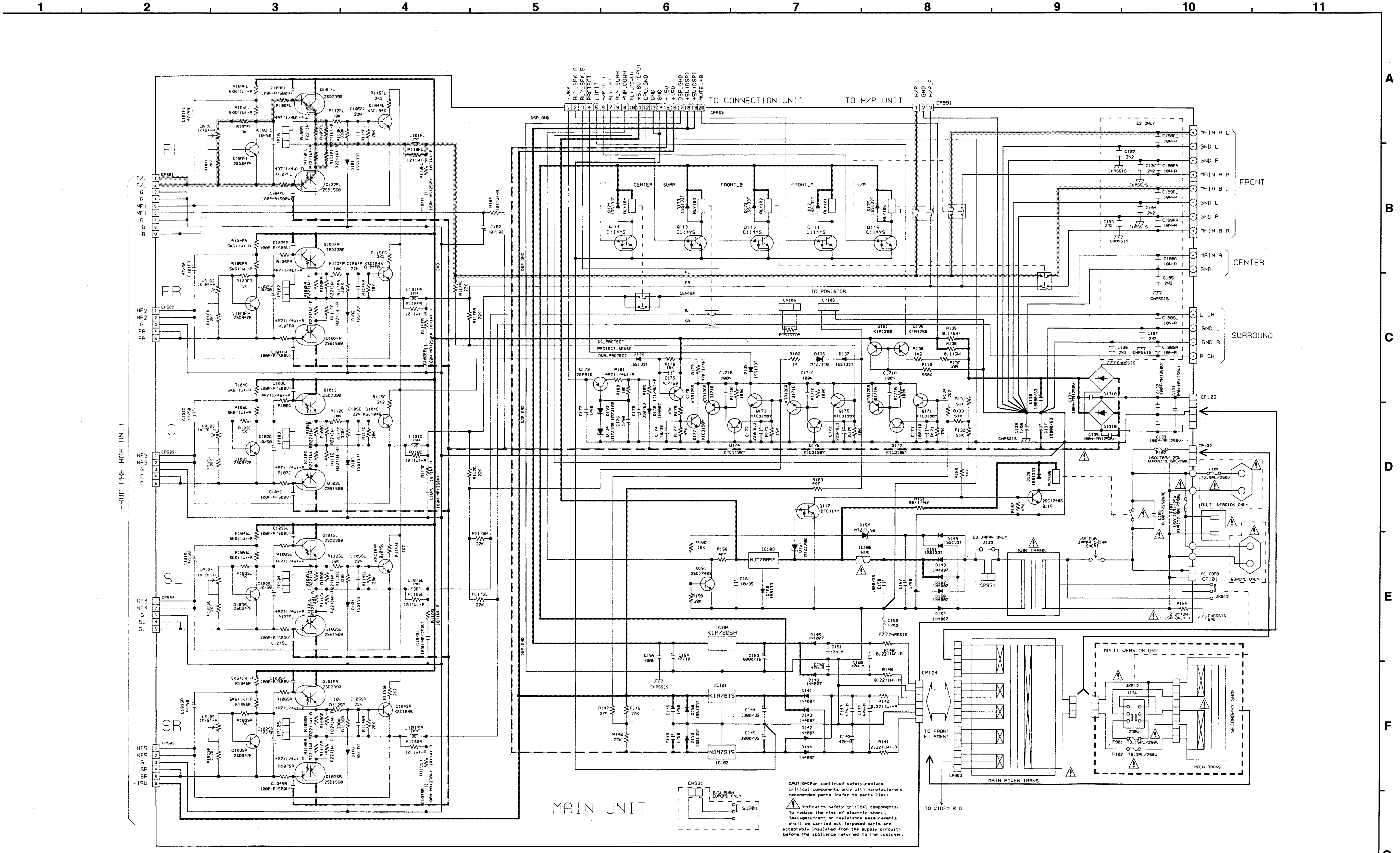
WARNING:

DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAMS (4/8)

CNT UNIT
PRE-AMP UNIT

SCHEMATIC DIAGRAMS (5/8)


1
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3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
FL
FR
C
SL
SR
FROM PRE AMP UNIT
TO CONNECTION UNIT
TO H/P UNIT
CENTER
SURR
FRONT_B
FRONT_A
H/P
TO POSISTOR
POSISTOR
MAIN A L
GND L
GND R
MAIN A R
MAIN B L
GND L
GND R
MAIN B R
FRONT
MAIN A
GND
CENTER
L CH
GND L
GND R
R CH
SURROUND
E2 ONLY
CHASSIS
MULTI VERSION ONLY
EUROPE ONLY
AC CORD
CP101
SUB TRANS
MAIN POWER TRANS
SECONDARY SAVE
TO FRONT FILAMENT
TO VIDEO B'D
MAIN UNIT
CN931
S/W PUSH
EUROPE ONLY
SW901
KIA7805A
KIA7815
NJM7915
NJM7805F
2SD2390
2SB1560
KTC3198Y
CP103
CP104
CP102
F101
F102
F901
JK912
115V
230V

CAUTION:For continued safety,replace critical components only with manufacturers recomended parts (refer to parts list)

⚠ indicates safety critical components.
To reduce the risk of electric shock, leakagecurrent or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance returned to the customer.

———— + B LINE
— — — — – B LINE
▨ SIGNAL LINE

NOTICE
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

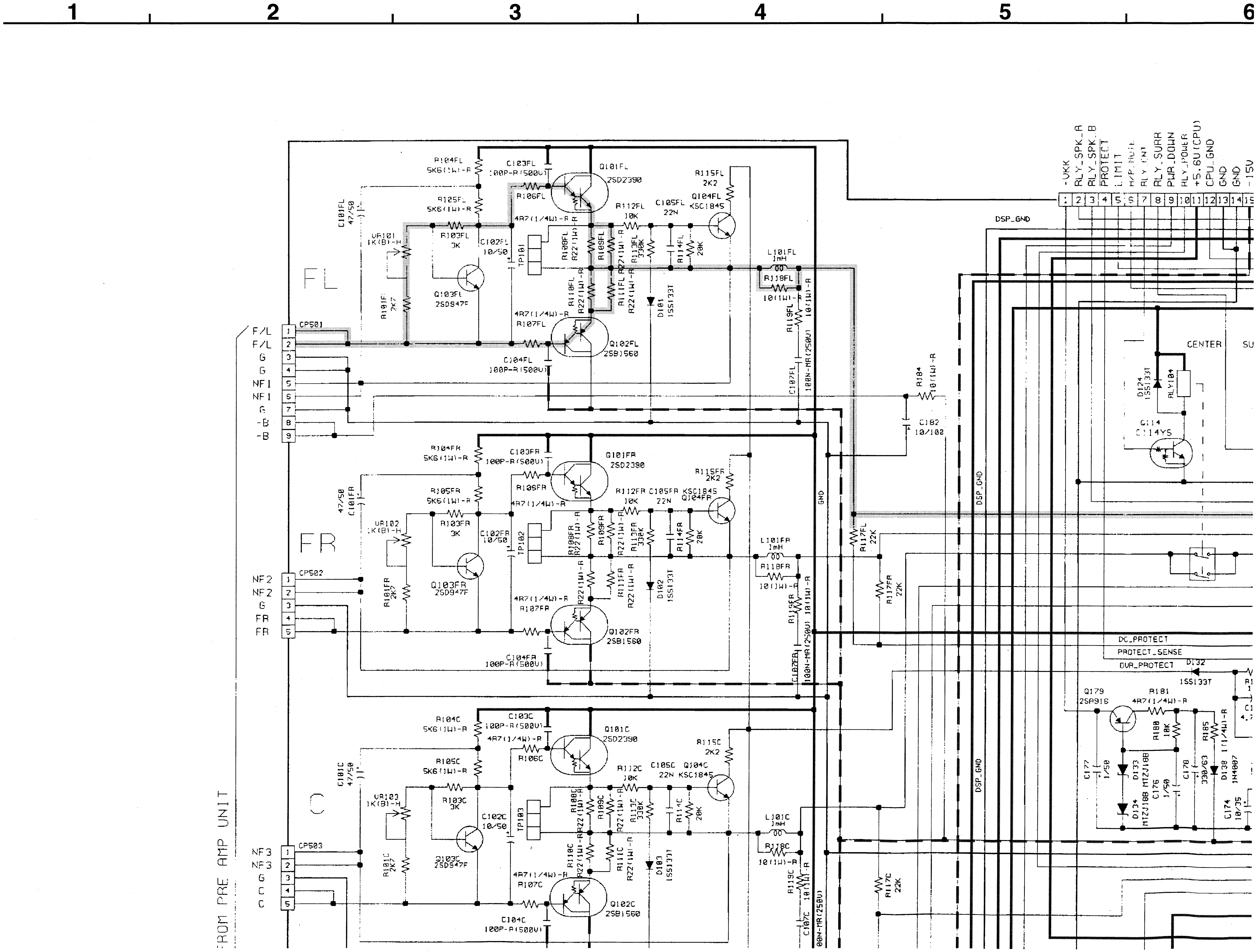
CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

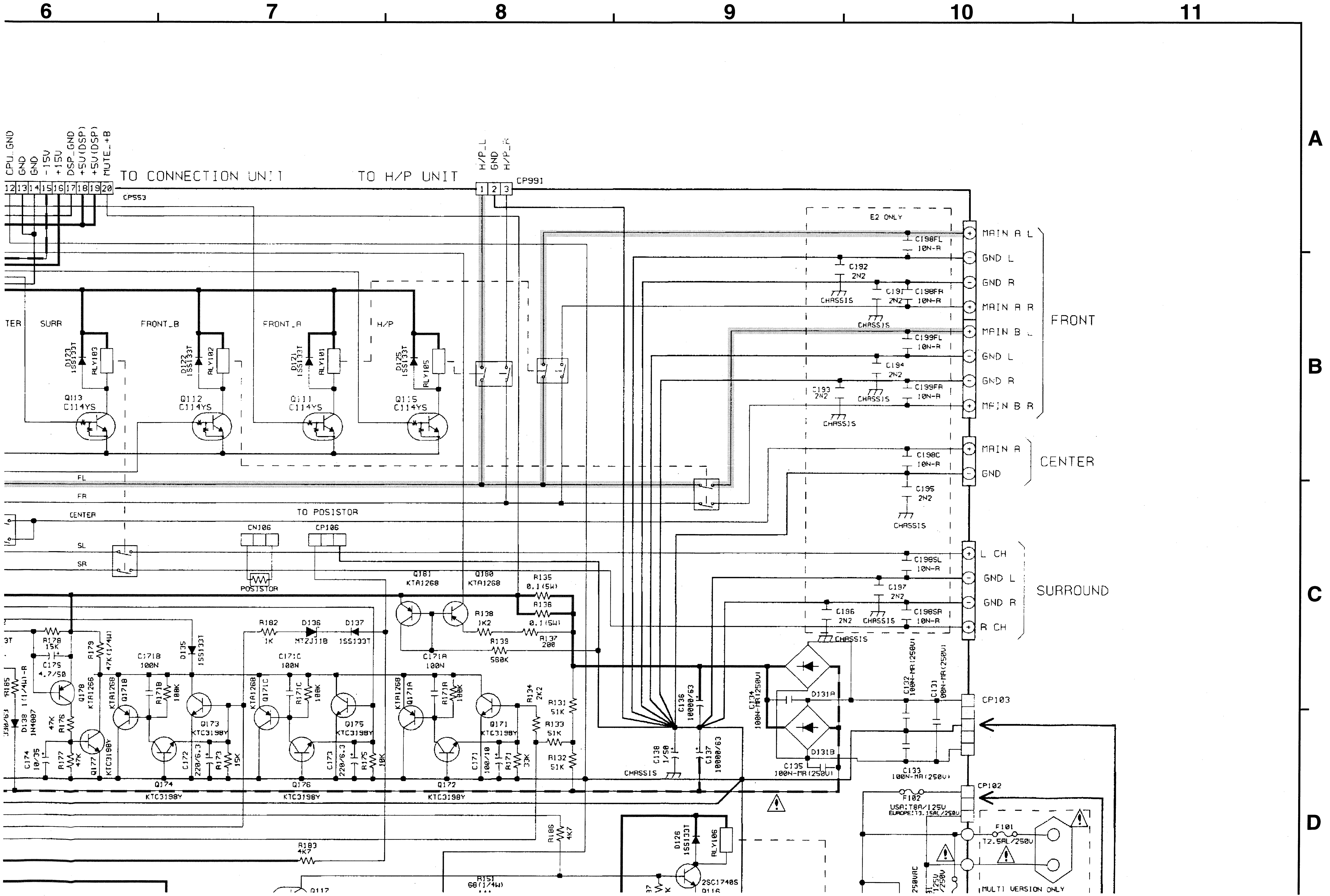
G
H

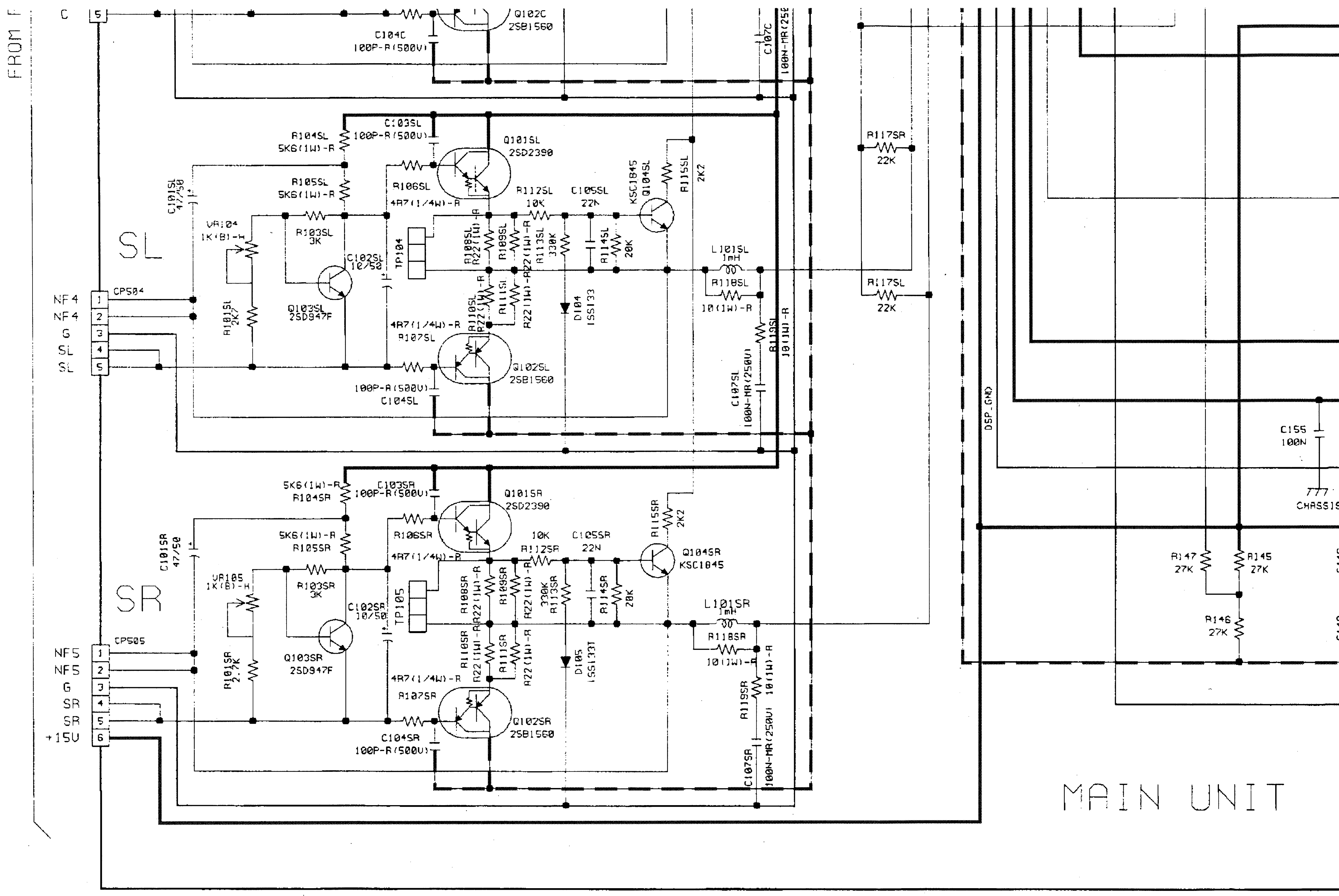
SCHEMATIC DIAGRAMS (5/8)
MAIN UNIT
VOLTAGE UNIT
OUTLET UNIT

SCHEMATIC DIAGRAMS (5/8)



1
2
3
4
5
6
FROM PRE AMP UNIT
FL
FR
C
CP501
F/L
F/L
G
G
NF1
NF1
G
-B
-B
CP502
NF2
NF2
G
FR
FR
CP503
NF3
NF3
G
C
C
R104FL 5K6(1W)-R
C103FL 100P-R(500V)
Q101FL 2SD2390
R115FL 2K2
Q104FL KSC1845
R105FL 5K6(1W)-R
R106FL
R112FL 10K
C105FL 22N
C101FL 47/50
VR101 1K(B)-H
R103FL 3K
4R7(1/4W)-R
C102FL 10/50
TP101
R108FL R22(1W)-R
R109FL R22(1W)-R
R113FL 330K
R114FL 20K
L101FL 1mH
R118FL 10(1W)-R
R101FL 2K7
Q103FL 2SD947F
R110FL R22(1W)-R
R111FL R22(1W)-R
D101 1SS133T
R119FL 10(1W)-R
R107FL
Q102FL 2SB1560
C104FL 100P-R(500V)
C107FL 100N-MR(250V)
R184 10(1W)-R
C182 10/100
R104FR 5K6(1W)-R
C103FR 100P-R(500V)
Q101FR 2SD2390
R115FR 2K2
R105FR 5K6(1W)-R
R106FR
R112FR 10K
C105FR 22N
KSC1845 Q104FR
C101FR 47/50
VR102 1K(B)-H
R103FR 3K
C102FR 10/50
TP102
R108FR R22(1W)-R
R109FR R22(1W)-R
R113FR 330K
R114FR 20K
L101FR 1mH
R118FR 10(1W)-R
R117FL 22K
R117FR 22K
R101FR 2K7
Q103FR 2SD947F
R110FR R22(1W)-R
R111FR R22(1W)-R
D102 1SS133T
R119FR 10(1W)-R
R107FR
Q102FR 2SB1560
C104FR 100P-R(500V)
C107FR 100N-MR(250V)
GND
R104C 5K6(1W)-R
C103C 100P-R(500V)
Q101C 2SD2390
R115C 2K2
R105C 5K6(1W)-R
R106C
R112C 10K
C105C 22N
Q104C KSC1845
C101C 47/50
VR103 1K(B)-H
R103C 3K
C102C 10/50
TP103
R108C R22(1W)-R
R109C R22(1W)-R
R113C 330K
R114C 20K
L101C 1mH
R118C 10(1W)-R
R101C 2K7
Q103C 2SD947F
R110C R22(1W)-R
R111C R22(1W)-R
D103 1SS133T
R119C 10(1W)-R
R117C 22K
R107C
Q102C 2SB1560
C104C 100P-R(500V)
C107C 100N-MR(250V)
DSP_GND
-VKK
RLY_SPK_A
RLY_SPK_B
PROTECT
LIMIT
H/P_MUTE
RLY_CNT
RLY_SURR
PWR_DOWN
RLY_POWER
+5.6V(CPU)
CPU_GND
GND
GND
-15V
CENTER
SU
D124 1SS133T
RLY104
Q114 C114YS
DC_PROTECT
PROTECT_SENSE
OVR_PROTECT
D132 1SS133T
Q179 2SA916
R181 4R7(1/4W)-R
R180 10K
R185 1(1/4W)-R
C177 1/50
D133 MTZJ18B
C178 330/63
D138 1N4007
C176 1/50
D134 MTZJ18B
C174 10/35


6
7
8
9
10
11
A
B
C
D
CPU_GND
GND
GND
-15V
+15V
DSP_GND
+5V(DSP)
+5V(DSP)
MUTE_+B
12 13 14 15 16 17 18 19 20
CP553
TO CONNECTION UNIT
TO H/P UNIT
H/P_L
GND
H/P_R
1 2 3
CP991
E2 ONLY
MAIN A L
GND L
GND R
MAIN A R
MAIN B L
GND L
GND R
MAIN B R
FRONT
MAIN A
GND
CENTER
L CH
GND L
GND R
R CH
SURROUND
C198FL 10N-R
C192 2N2
CHASSIS
C197 2N2
C198FR 10N-R
C199FL 10N-R
C194 2N2
C193 2N2
C199FR 10N-R
C198C 10N-R
C195 2N2
C198SL 10N-R
C197 2N2
C196 2N2
C198SR 10N-R
TER
SURR
FRONT_B
FRONT_A
H/P
D123 1SS133T
RLY103
D122 1SS133T
RLY102
D121 1SS133T
RLY101
D125 1SS133T
RLY105
Q113 C114YS
Q112 C114YS
Q111 C114YS
Q115 C114YS
FL
FR
CENTER
SL
SR
TO POSISTOR
CN106
CP106
POSISTOR
Q181 KTA1268
Q180 KTA1268
R135 0.1(5W)
R136 0.1(5W)
R138 1K2
R137 200
R139 560K
R182 1K
D136 MTZJ11B
D137 1SS133T
R178 15K
C175 4.7/50
R179 47K(1/4W)
C171B 100N
D135 1SS133T
C171C 100N
C171A 100N
R185 1(1/4W)-R
Q178 KTA1266
KTA1268 Q171B
R171B 100K
KTA1268 Q171C
R171C 100K
KTA1268 Q171A
R171A 100K
R134 2K2
R131 51K
R133 51K
R132 51K
Q173 KTC3198Y
Q175 KTC3198Y
Q171 KTC3198Y
D138 1N4007
R176 47K
R177 47K
C174 10/35
Q177 KTC3198Y
Q174 KTC3198Y
C172 220/6.3
R173 15K
Q176 KTC3198Y
C173 220/6.3
R175 10K
Q172 KTC3198Y
C171 100/10
R171 33K
C136 10000/63
C137 10000/63
C138 1/50
CHASSIS
C134 100N-MR(250V)
D131A
D131B
C135 100N-MR(250V)
C132 100N-MR(250V)
C131 100N-MR(250V)
C133 100N-MR(250V)
CP103
CP102
F102
USA:T8A/125V
EUROPE:T3.15AL/250V
F101
T2.5AL/250V
MULTI VERSION ONLY
250VAC
125V 250V
R186 4K7
R183 4K7
D126 1SS133T
RLY106
2SC1740S Q116
R151 68(1/4W)
Q117


FROM F
C
Q102C
2SB1560
C104C
100P-R(500V)
C107C
100N-MR(250
SL
C103SL
100P-R(500V)
R104SL
5K6(1W)-R
Q101SL
2SD2390
R105SL
5K6(1W)-R
R106SL
4R7(1/4W)-R
C101SL
47/50
VR104
1K(B)-H
R103SL
3K
C102SL
10/50
Q103SL
2SD947F
R101SL
2K7
TP104
R108SL
R22(1W)-R
R109SL
R22(1W)-R
R110SL
R22(1W)-R
R111SL
R22(1W)-R
R112SL
10K
R113SL
330K
C105SL
22N
R114SL
20K
KSC1845
Q104SL
R115SL
2K2
D104
1SS133
L101SL
1mH
R118SL
10(1W)-R
R119SL
10(1W)-R
C107SL
100N-MR(250V)
4R7(1/4W)-R
R107SL
Q102SL
2SB1560
100P-R(500V)
C104SL
CPS04
NF4
NF4
G
SL
SL
R117SR
22K
R117SL
22K
DSP_GND
C155
100N
CHASSIS
SR
5K6(1W)-R
R104SR
C103SR
100P-R(500V)
Q101SR
2SD2390
5K6(1W)-R
R105SR
R106SR
4R7(1/4W)-R
C101SR
47/50
VR105
1K(B)-H
R103SR
3K
C102SR
10/50
Q103SR
2SD947F
R101SR
2.7K
TP105
R108SR
R22(1W)-R
R109SR
R22(1W)-R
R110SR
R22(1W)-R
R111SR
R22(1W)-R
10K
R112SR
R113SR
330K
C105SR
22N
R114SR
20K
R115SR
2K2
Q104SR
KSC1845
D105
1SS133
L101SR
1mH
R118SR
10(1W)-R
R119SR
10(1W)-R
C107SR
100N-MR(250V)
4R7(1/4W)-R
R107SR
Q102SR
2SB1560
C104SR
100P-R(500V)
CPS05
NF5
NF5
G
SR
SR
+15V
R147
27K
R145
27K
R146
27K
MAIN UNIT

NOTICE

ALL RESISTANCE VALU

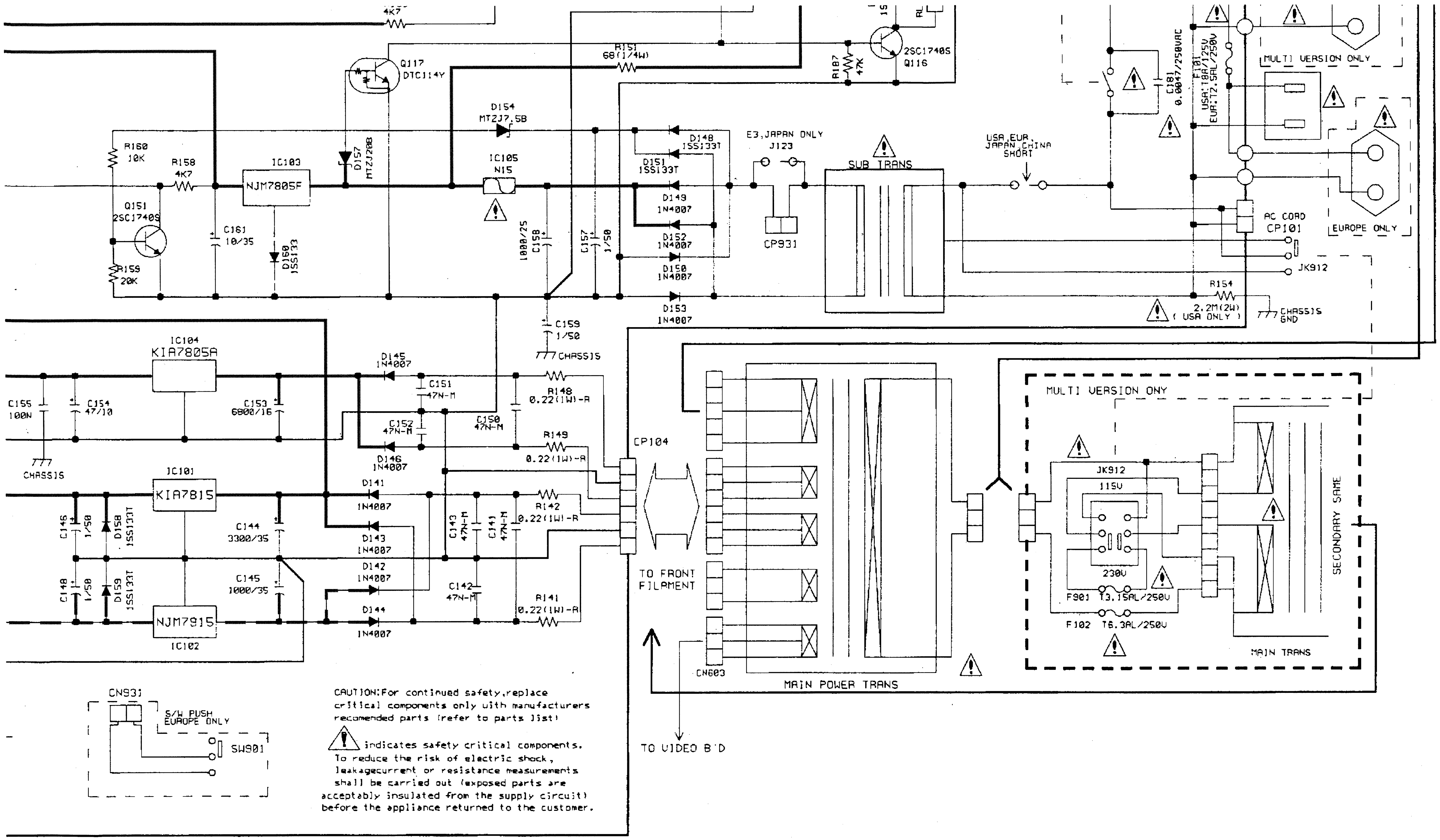
ALL CAPACITANCE VAL

EACH VOLTAGE AND C

CONDITION.

CIRCUIT AND PARTS A

NOTICE.


4K7
R151 68(1/4W)
Q117 DTC114Y
R187 47K
2SC1740S Q116
D154 MTZJ7.5B
D157 MTZJ20B
R160 10K
R158 4K7
IC103 NJM7805F
Q151 2SC1740S
R159 20K
C161 10/35
D160 1SS133
IC105 N15
D148 1SS133T
D151 1SS133T
D149 1N4007
D152 1N4007
D150 1N4007
D153 1N4007
C158 1000/25
C157 1/50
C159 1/50
CHASSIS
E3,JAPAN ONLY J123
CP931
SUB TRANS
USA,EUR, JAPAN,CHINA SHORT
C181 0.0047/250VAC
F101 USA:T8A/125V EUR:T2.5AL/250V
MULTI VERSION ONLY
EUROPE ONLY
AC CORD CP101
JK912
R154 2.2M(2W) (USA ONLY)
CHASSIS GND
IC104 KIA7805A
C155 100N
C154 47/10
C153 6800/16
D145 1N4007
C151 47N-M
C152 47N-M
C150 47N-M
D146 1N4007
R148 0.22(1W)-A
R149 0.22(1W)-A
CP104
IC101 KIA7815
C146 1/50
D158 1SS133T
C144 3300/35
D141 1N4007
D143 1N4007
C143 47N-M
C141 47N-M
R142 0.22(1W)-R
C148 1/50
D159 1SS133T
C145 1000/35
D142 1N4007
C142 47N-M
D144 1N4007
R141 0.22(1W)-R
NJM7915 IC102
TO FRONT FILAMENT
CN603
MAIN POWER TRANS
TO VIDEO B'D
MULTI VERSION ONY
JK912 115V 230V
F901 T3.15AL/250V
F102 T6.3AL/250V
SECONDARY SAME
MAIN TRANS
CN931
S/W PUSH EUROPE ONLY
SW901

CAUTION:For continued safety,replace critical components only with manufacturers recomended parts (refer to parts list)

⚠ indicates safety critical components. To reduce the risk of electric shock, leakagecurrent or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance returned to the customer.

E VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
NCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT

ARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR

WARNING:

Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

WARNING:

DO NOT return the unit to the customer until the problem is located and corrected.

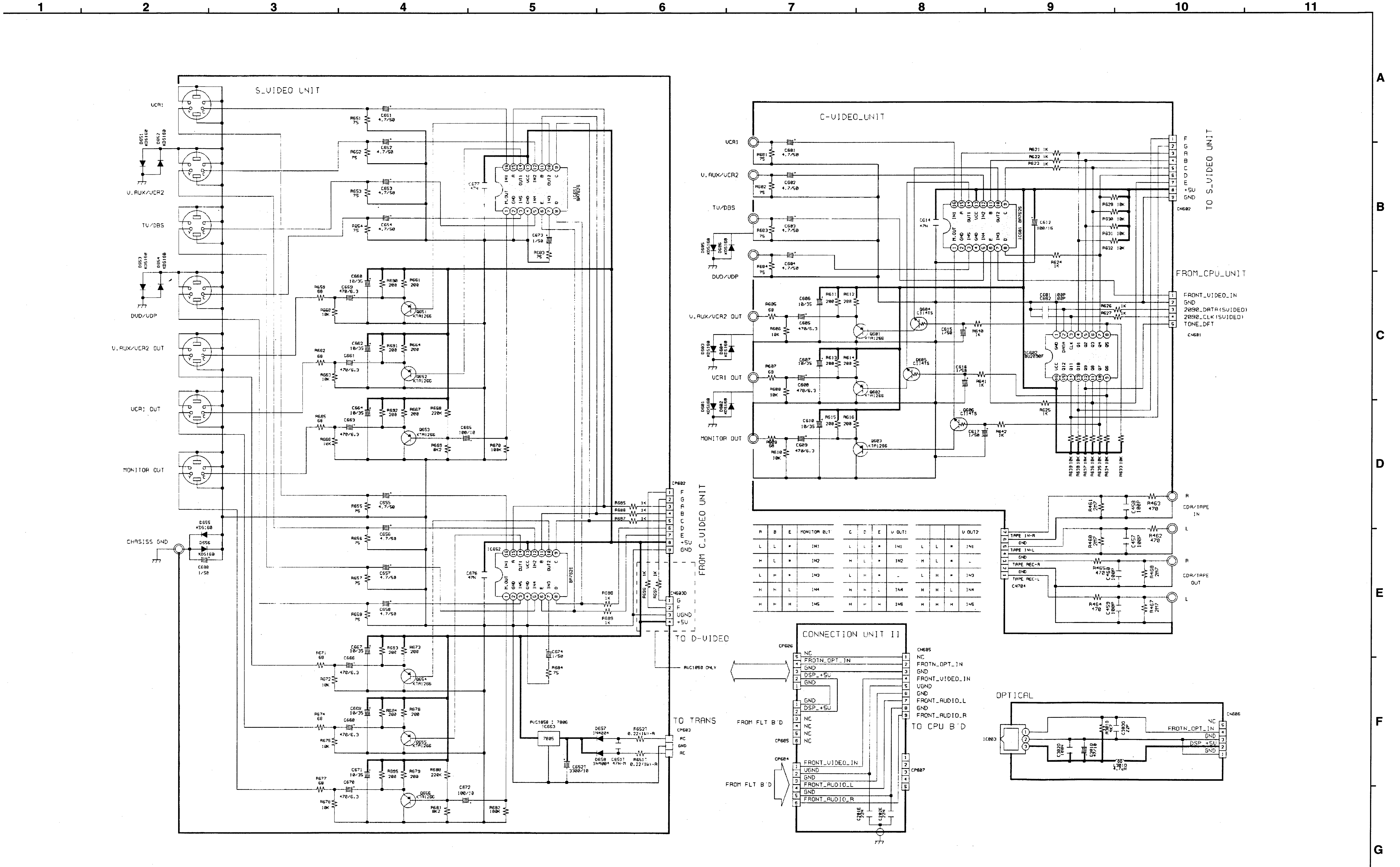
——— +B LINE
– – – – −B LINE
▨ SIGNAL LINE

E
F
G
H

SCHEMATIC DIAGRAMS (5/8)

MAIN UNIT
VOLTAGE UNIT
OUTLET UNIT

SCHEMATIC DIAGRAMS (6/8)


S_VIDEO UNIT
C-VIDEO_UNIT
VCR1
V.AUX/VCR2
TV/DBS
DVD/VDP
V.AUX/VCR2 OUT
VCR1 OUT
MONITOR OUT
CHASSIS GND
TO S_VIDEO UNIT
FROM_CPU_UNIT
FRONT_VIDEO_IN
2090_DATA(SVIDEO)
2090_CLK(SVIDEO)
TONE_DFT
FROM C_VIDEO UNIT
TO D-VIDEO
TO TRANS
CONNECTION UNIT II
FROM FLT B'D
TO CPU B'D
OPTICAL
CDR/TAPE IN
CDR/TAPE OUT
TAPE IN-R
TAPE IN-L
TAPE REC-R
TAPE REC-L
CN704
BA7625
BU2090F
KTA1266
CT14TS
7805
1N4004
1 2 3 4 5 6 7 8 9 10 11
A B C D E F G H

A	B	E	MONITOR OUT
L	L	*	IN1
H	L	*	IN2
L	H	*	IN3
H	H	L	IN4
H	H	H	IN5

C	D	E	V OUT1
L	L	*	IN1
H	L	*	IN2
L	H	*	-
H	H	L	IN4
H	H	H	IN5

			V OUT2
L	L	*	IN1
H	L	*	-
L	H	*	IN3
H	H	L	IN4
H	H	H	IN5

——— + B LINE

NOTICE
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

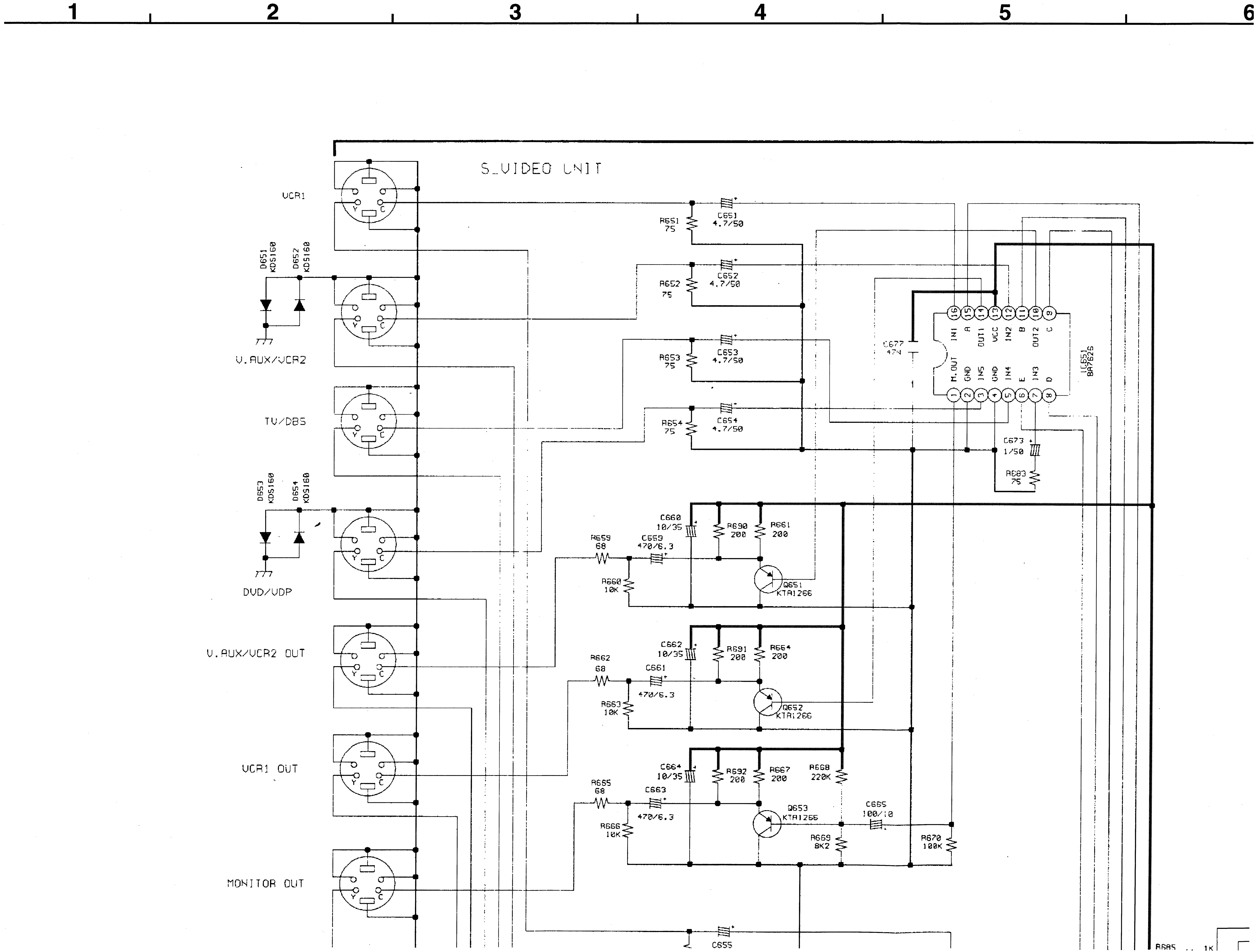
WARNING:
Parts marked with this symbol ⚠▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

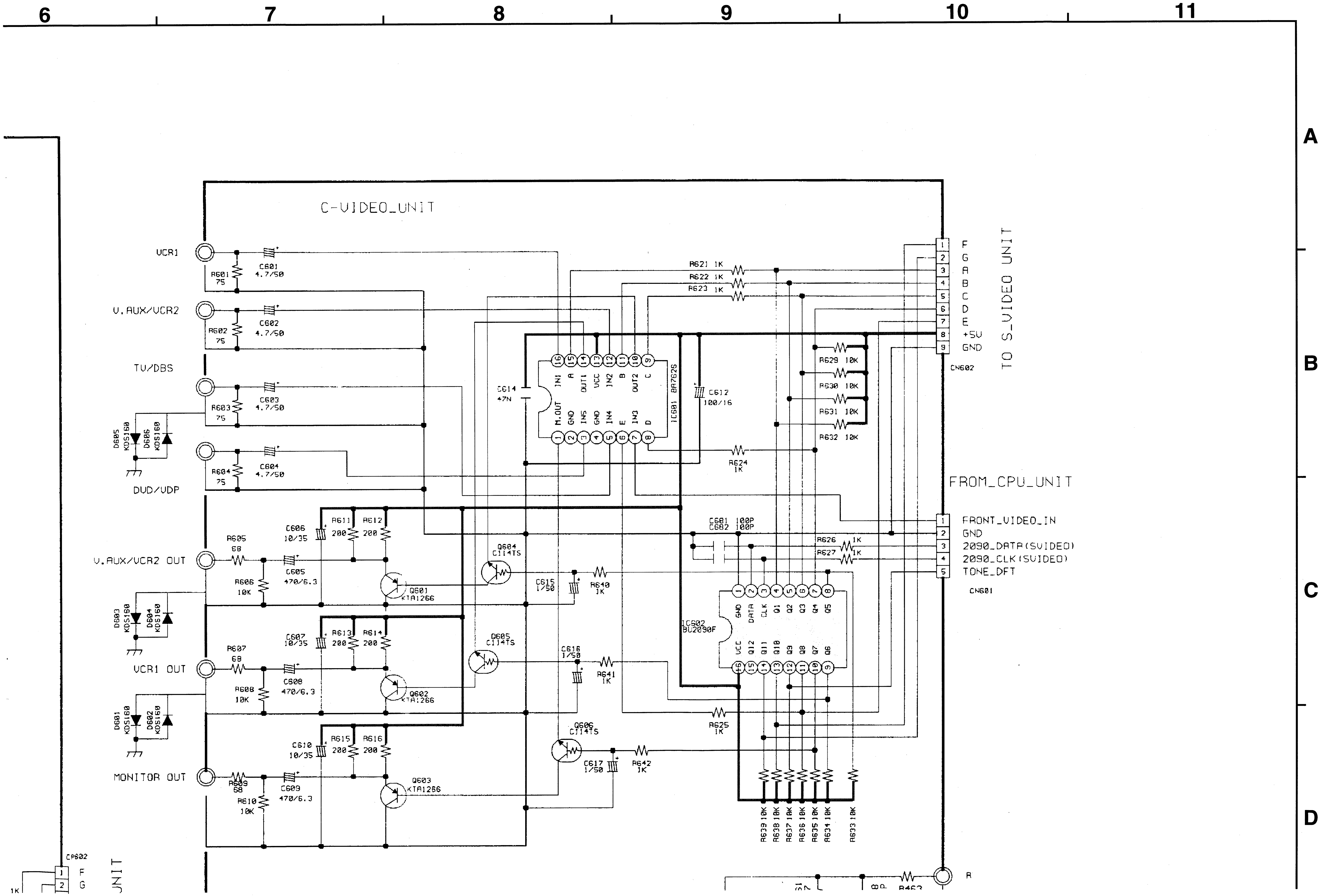
CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

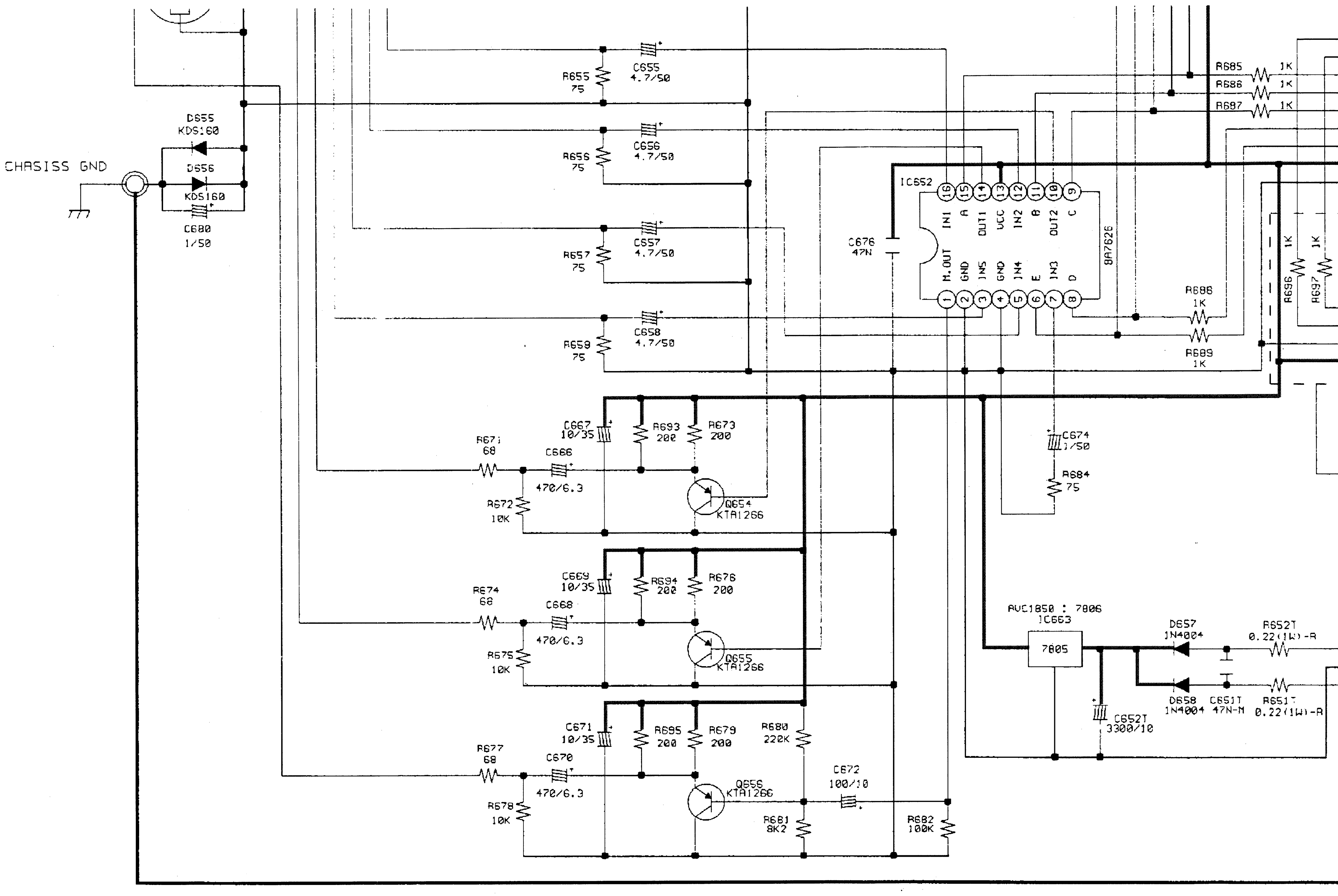
WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAMS (6/8)
VIDEO UNIT
S-VIDEO UNIT
FRONT CNT UNIT
OPTICAL UNIT

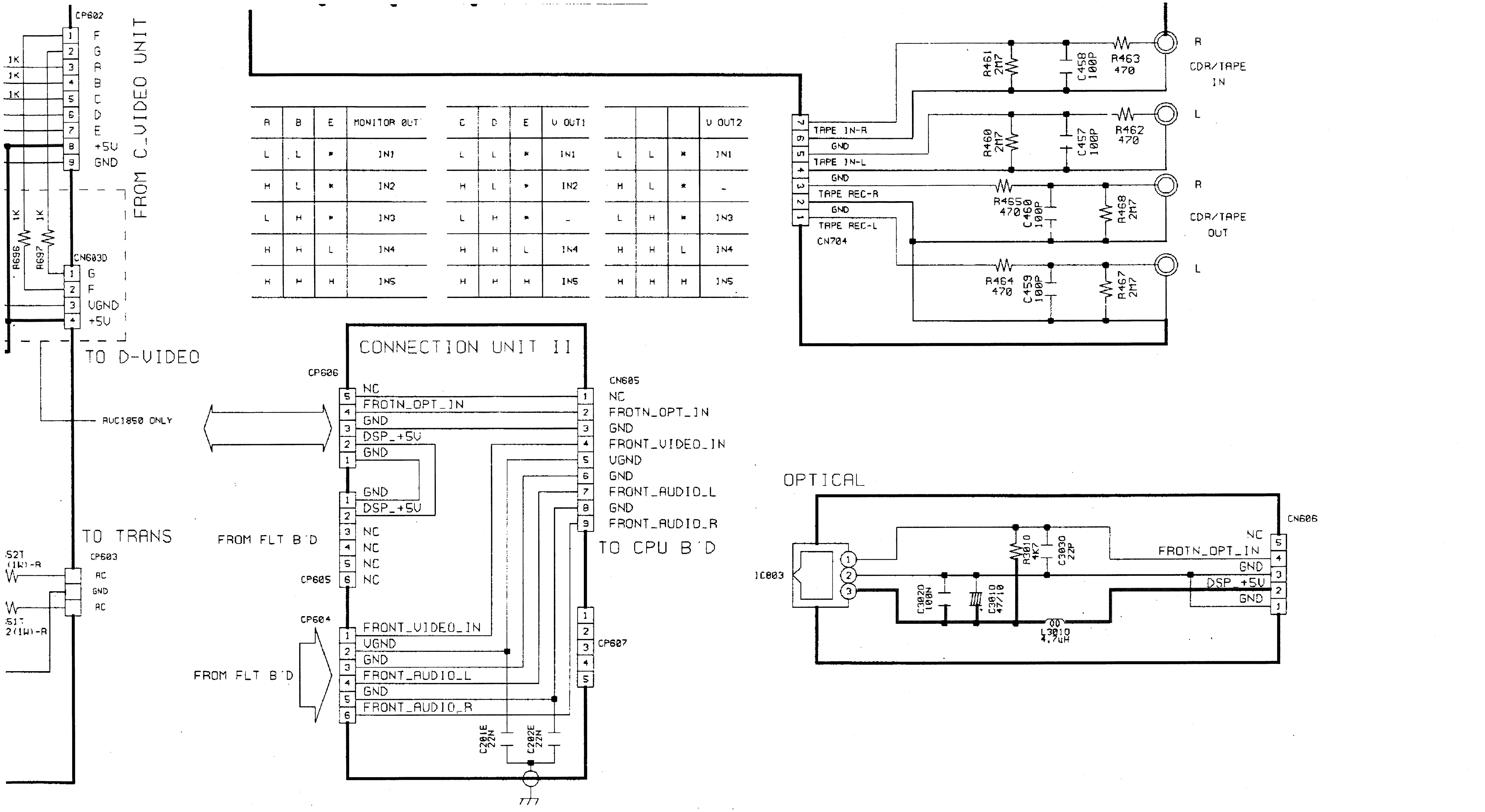
SCHEMATIC DIAGRAMS (6/8)


1
2
3
4
5
6
S_VIDEO UNIT
VCR1
D651 KDS160
D652 KDS160
V.AUX/VCR2
TV/DBS
D653 KDS160
D654 KDS160
DVD/VDP
V.AUX/VCR2 OUT
VCR1 OUT
MONITOR OUT
Y
C
R651 75
C651 4.7/50
R652 75
C652 4.7/50
R653 75
C653 4.7/50
R654 75
C654 4.7/50
C677 47N
IC651 BA7625
IN1
A
OUT1
VCC
IN2
B
OUT2
C
M.OUT
GND
IN5
GND
IN4
E
IN3
D
C673 1/50
R683 75
C660 10/35
R690 200
R661 200
R659 68
C659 470/6.3
R660 10K
Q651 KTA1266
C662 10/35
R691 200
R664 200
R662 68
C661 470/6.3
R663 10K
Q652 KTA1266
C664 10/35
R692 200
R667 200
R668 220K
R665 68
C663 470/6.3
R666 10K
Q653 KTA1266
C665 100/10
R669 8K2
R670 100K
C655
R685 1K


6
7
8
9
10
11
A
B
C
D
C-VIDEO_UNIT
VCR1
R601 75
C601 4.7/50
V.AUX/VCR2
R602 75
C602 4.7/50
TV/DBS
R603 75
C603 4.7/50
D605 KDS160
D606 KDS160
R604 75
C604 4.7/50
DVD/VDP
C614 47N
IC601 BA7626S
IN1
A
OUT1
VCC
IN2
B
OUT2
C
M.OUT
GND
IN5
GND
IN4
E
IN3
D
C612 100/16
R621 1K
R622 1K
R623 1K
R624 1K
R629 10K
R630 10K
R631 10K
R632 10K
F
G
A
B
C
D
E
+5V
GND
CN602
TO S_VIDEO UNIT
FROM_CPU_UNIT
FRONT_VIDEO_IN
GND
2090_DATA(SVIDEO)
2090_CLK(SVIDEO)
TONE_DFT
CN601
C681 100P
C682 100P
R626 1K
R627 1K
V.AUX/VCR2 OUT
R605 68
R606 10K
C605 470/6.3
C606 10/35
R611 200
R612 200
Q601 KTA1266
Q604 C114TS
C615 1/50
R640 1K
D603 KDS160
D604 KDS160
VCR1 OUT
R607 68
R608 10K
C607 10/35
C608 470/6.3
R613 200
R614 200
Q602 KTA1266
Q605 C114TS
C616 1/50
R641 1K
D601 KDS160
D602 KDS160
MONITOR OUT
R609 68
R610 10K
C609 470/6.3
C610 10/35
R615 200
R616 200
Q603 KTA1266
Q606 C114TS
C617 1/50
R642 1K
IC602 BU2090F
GND
DATA
CLK
Q1
Q2
Q3
Q4
Q5
VCC
Q12
Q11
Q10
Q9
Q8
Q7
Q6
R625 1K
R639 10K
R638 10K
R637 10K
R636 10K
R635 10K
R634 10K
R633 10K
CP602
F
G
1K
UNIT
R
R463


CHASISS GND
D555
KDS160
D556
KDS160
C680
1/50
R655
75
C655
4.7/50
R656
75
C656
4.7/50
R657
75
C657
4.7/50
R659
75
C658
4.7/50
IC652
IN1
A
OUT1
VCC
IN2
B
OUT2
C
M.OUT
GND
IN5
GND
IN4
E
IN3
D
BA7626
C676
47N
R685
1K
R686
1K
R687
1K
R688
1K
R689
1K
R696
1K
R697
1K
C674
1/50
R684
75
R671
68
C667
10/35
C666
470/6.3
R672
10K
R693
200
R673
200
Q654
KTA1266
R674
68
C669
10/35
C668
470/6.3
R675
10K
R694
200
R676
200
Q655
KTA1266
R677
68
C671
10/35
C670
470/6.3
R678
10K
R695
200
R679
200
Q656
KTA1266
R680
220K
R681
8K2
C672
100/10
R682
100K
AVC1850 : 7806
IC663
7805
C652T
3300/10
D657
1N4004
D658
1N4004
C651T
47N-M
R652T
0.22(1W)-R
R651T
0.22(1W)-R

NOTICE
ALL RESISTANCE VAL
ALL CAPACITANCE VA
EACH VOLTAGE AND C
CONDITION.
CIRCUIT AND PARTS A
NOTICE.


CP602
F
G
A
B
C
D
E
+5V
GND
FROM C_VIDEO UNIT
1K
1K
1K
R696
R697
CN603D
G
F
VGND
+5V
TO D-VIDEO
AVC1850 ONLY
TO TRANS
CP603
AC
GND
AC
CONNECTION UNIT II
CP606
NC
FROTN_OPT_IN
GND
DSP_+5V
GND
GND
DSP_+5V
NC
NC
NC
NC
FROM FLT B'D
CP605
CP604
FRONT_VIDEO_IN
VGND
GND
FRONT_AUDIO_L
GND
FRONT_AUDIO_R
FROM FLT B'D
C201E 22N
C202E 22N
CN605
NC
FROTN_OPT_IN
GND
FRONT_VIDEO_IN
VGND
GND
FRONT_AUDIO_L
GND
FRONT_AUDIO_R
TO CPU B'D
CP607
TAPE IN-R
GND
TAPE IN-L
GND
TAPE REC-R
GND
TAPE REC-L
CN704
R461 2M7
C458 100P
R463 470
R460 2M7
C457 100P
R462 470
R465 470
C460 100P
R468 2M7
R464 470
C459 100P
R467 2M7
R
CDR/TAPE IN
L
R
CDR/TAPE OUT
L
OPTICAL
IC803
C3020 100N
C3010 47/10
R3010 4K7
C3030 22P
L3010 4.7uH
CN606
NC
FROTN_OPT_IN
GND
DSP_+5V
GND

A	B	E	MONITOR OUT
L	L	*	IN1
H	L	*	IN2
L	H	*	IN3
H	H	L	IN4
H	H	H	IN5

C	D	E	V OUT1
L	L	*	IN1
H	L	*	IN2
L	H	*	_
H	H	L	IN4
H	H	H	IN5

			V OUT2
L	L	*	IN1
H	L	*	_
L	H	*	IN3
H	H	L	IN4
H	H	H	IN5

———— + B LINE

CE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
NCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
E AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT

ARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR

WARNING:

Parts marked with this symbol ⚠ ▭ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

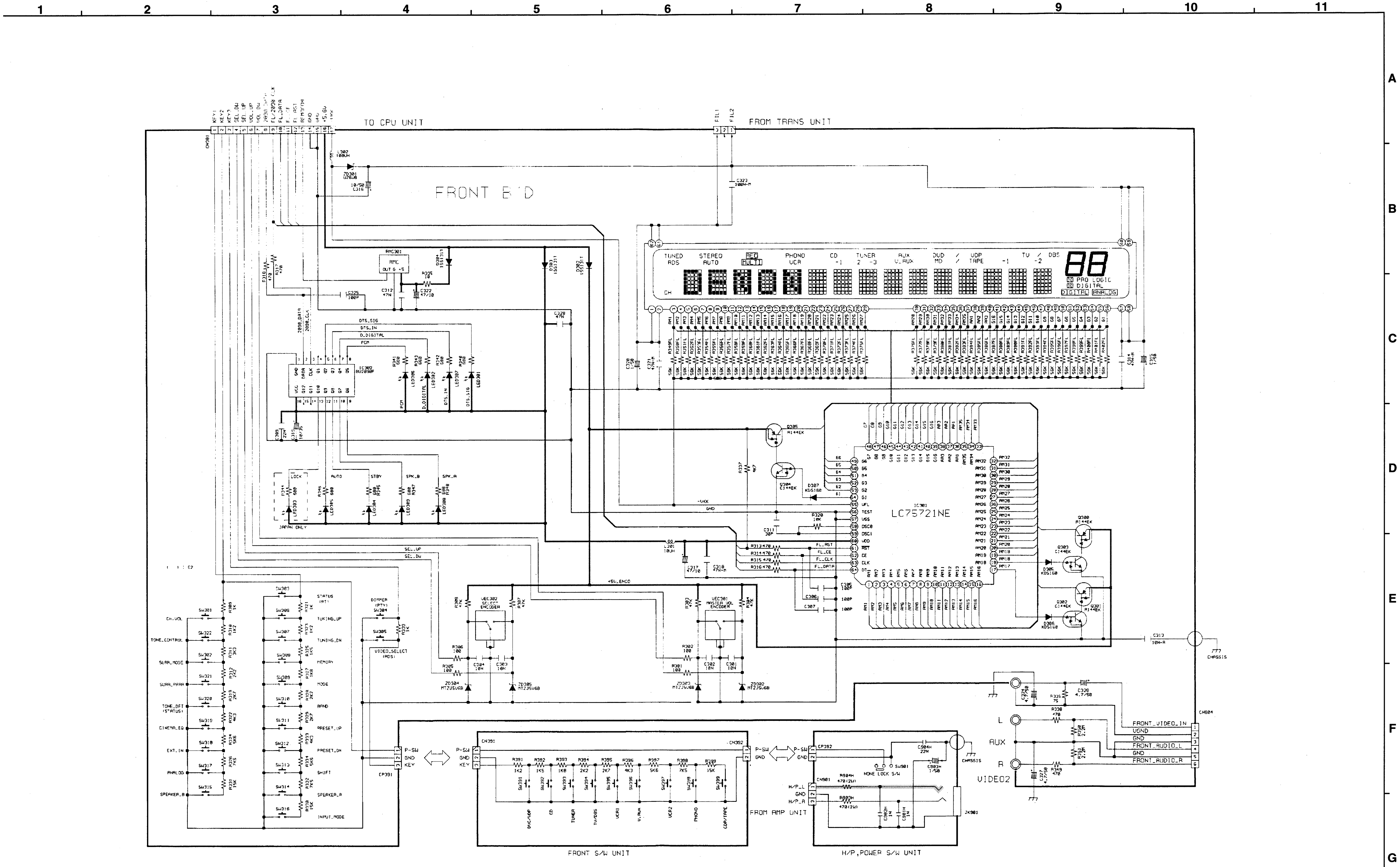
WARNING:

DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAMS (6/8)

VIDEO UNIT
S-VIDEO UNIT
FRONT CNT UNIT
OPTICAL UNIT

SCHEMATIC DIAGRAMS (7/8)


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
TO CPU UNIT
FROM TRANS UNIT
FRONT B'D
CN301
L302 100uH
ZD301
C316
C323 100N-R
RMC301
RMC
OUT G +5
C312 47N
C322 47/10
C325 100P
C320
D301
D302
D303
IC302 BU2090F
2090_DATA
2090_CLK
DTS_SIG
DTS_IN
D_DIGITAL
PCM
LED305
LED302
LED307
LED301
LOCK
AUTO
STBY
SPK_B
SPK_A
LED303
LED304
LED309
LED308
JAPAN ONLY
TUNED
RDS
STEREO
AUTO
REC
MULTI
PHONO
VCR
CD
TUNER
AUX
DVD
MD
VDP
TAPE
TV
DBS
PRO LOGIC
DIGITAL
ANALOG
CH
IC301
LC75721NE
Q305
Q304
D307
R337
R320
C311
L301 10uH
C317 47/10
C318 47N-R
FL_RST
FL_CE
FL_CLK
FL_DATA
Q300
Q303
Q302
Q301
D305
D306
C313
CHASSIS
+5V_ENCO
SEL_UP
SEL_DW
VEC302 SELECT ENCODER
VEC301 MASTER VOL ENCODER
ZD304 MTZJ5V6B
ZD305 MTZJ5V6B
ZD303 MTZJ5V6B
ZD302 MTZJ5V6B
CH.VOL
TONE_CONTROL
SURR_MODE
SURR_PARA
TONE_DFT (STATUS)
CINEMA_EQ
EXT.IN
ANALOG
SPEAKER_B
STATUS (RT)
TUNING_UP
TUNING_DN
MEMORY
MODE
BAND
PRESET_UP
PRESET_DN
SHIFT
SPEAKER_A
INPUT_MODE
DIMMER (PTY)
SW304
SW305
VIDEO_SELECT (RDS)
P-SW
GND
KEY
CP391
CN391
CN392
FRONT S/W UNIT
DVD/VDP
CD
TUNER
TV/DBS
VCR1
V.AUX
VCR2
PHONO
CDR/TAPE
CP392
C904H 22N
S901
NONE LOCK S/W
C903H 1/50
CHASSIS
H/P_L
GND
H/P_R
CN901
R904H 470(2W)
R903H 470(2W)
C902H 1N
C901H 1N
JK901
FROM AMP UNIT
H/P,POWER S/W UNIT
L
AUX
R
VIDEO2
C326 4.7/50
R335 75
R338 470
R349 470
CN604
FRONT_VIDEO_IN
VGND
GND
FRONT_AUDIO_L
GND
FRONT_AUDIO_R

+ B LINE

▨ SIGNAL LINE

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

WARNING:
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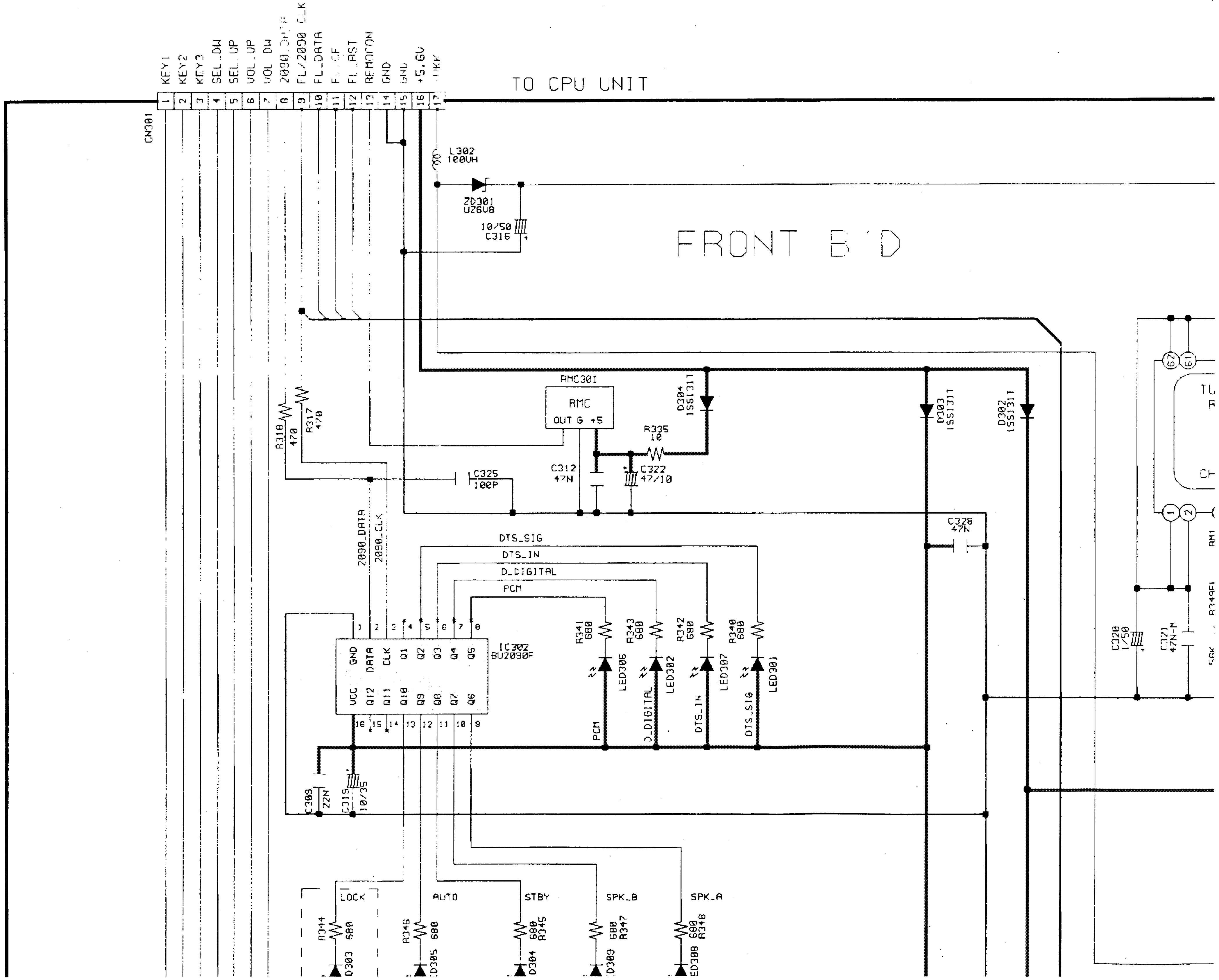
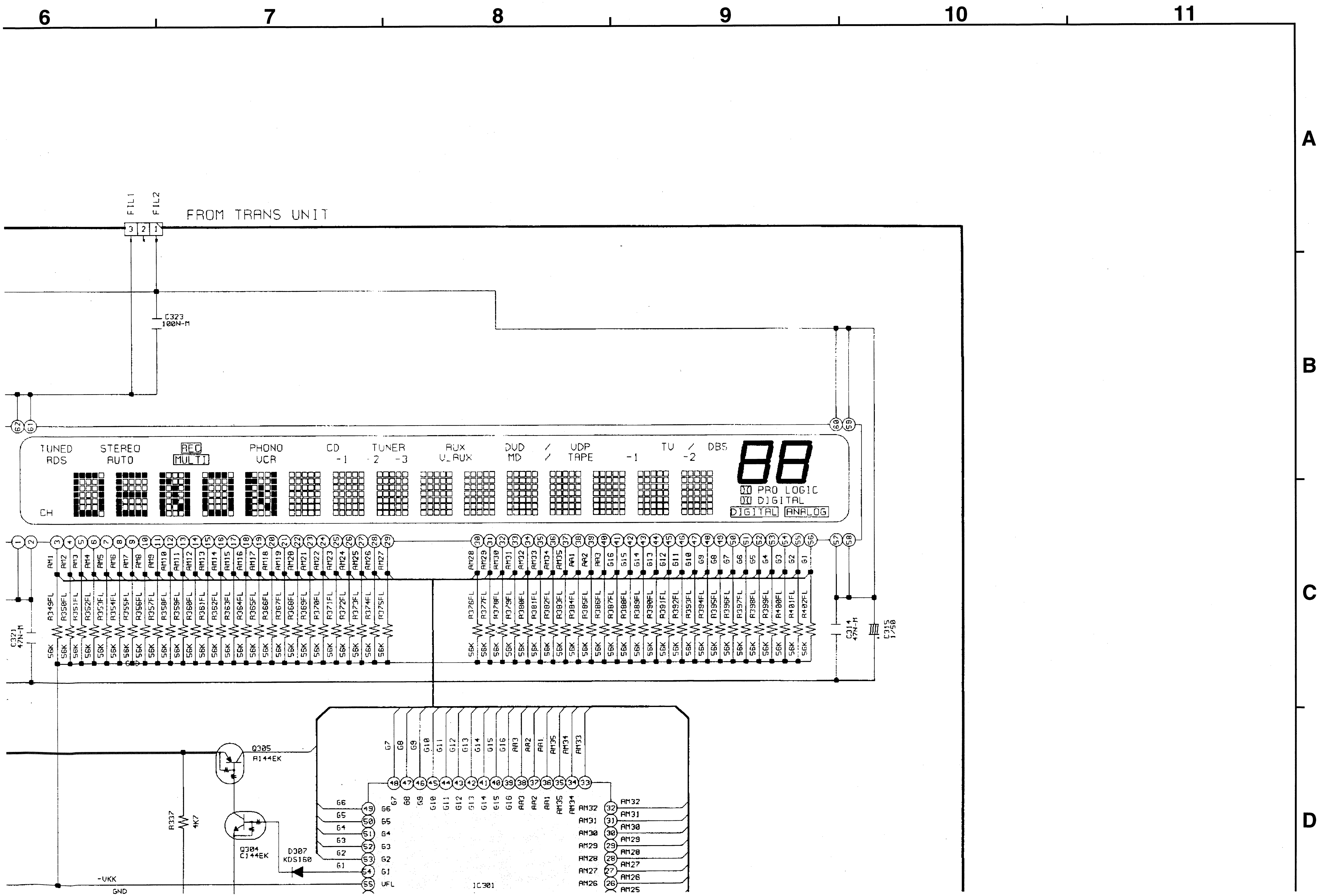
NOTICE
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

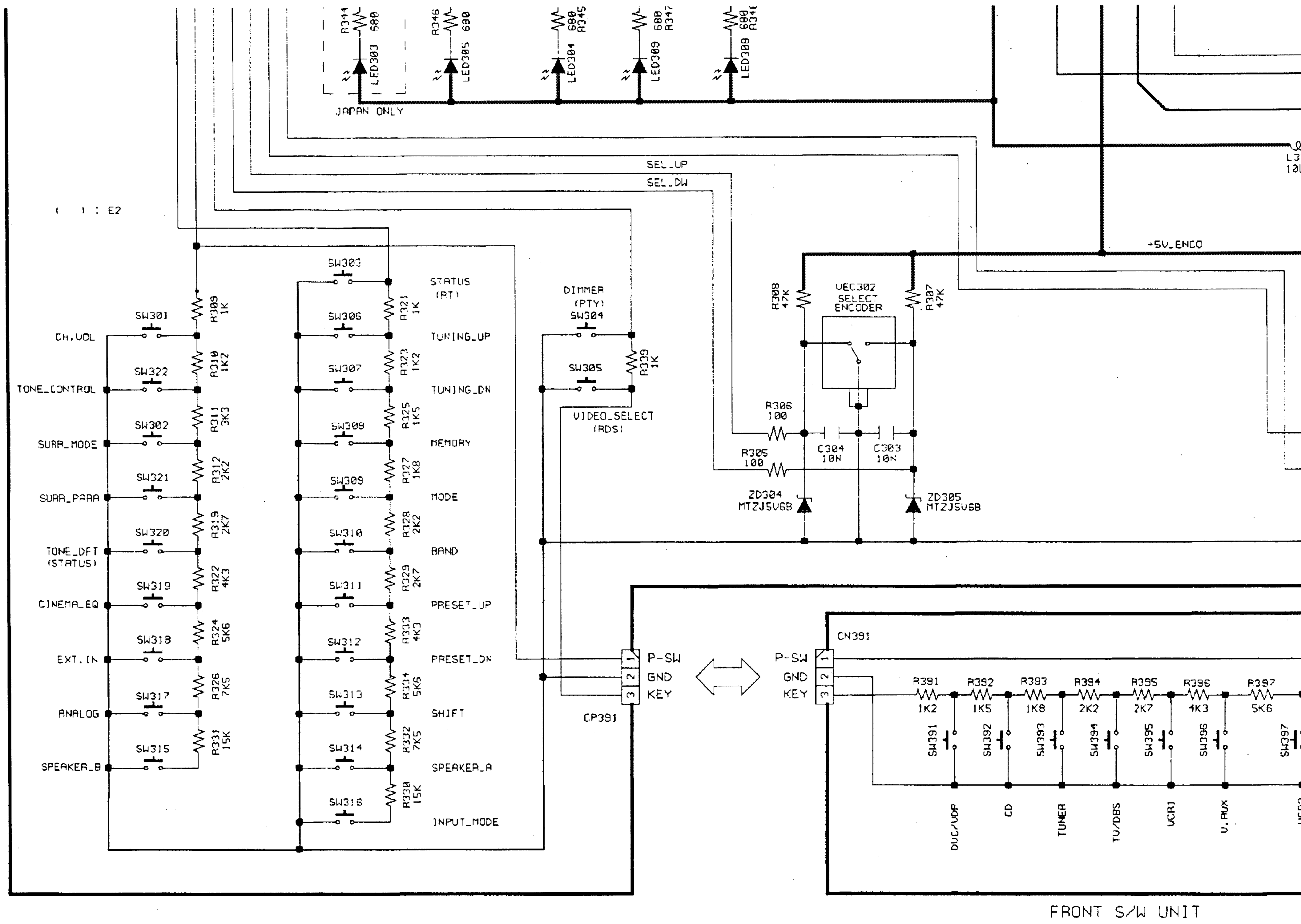
SCHEMATIC DIAGRAMS (7/8)
FRONT UNIT
TACT S/W UNIT
HEAD PHONE UNIT

SCHEMATIC DIAGRAMS (7/8)

1 2 3 4 5 6

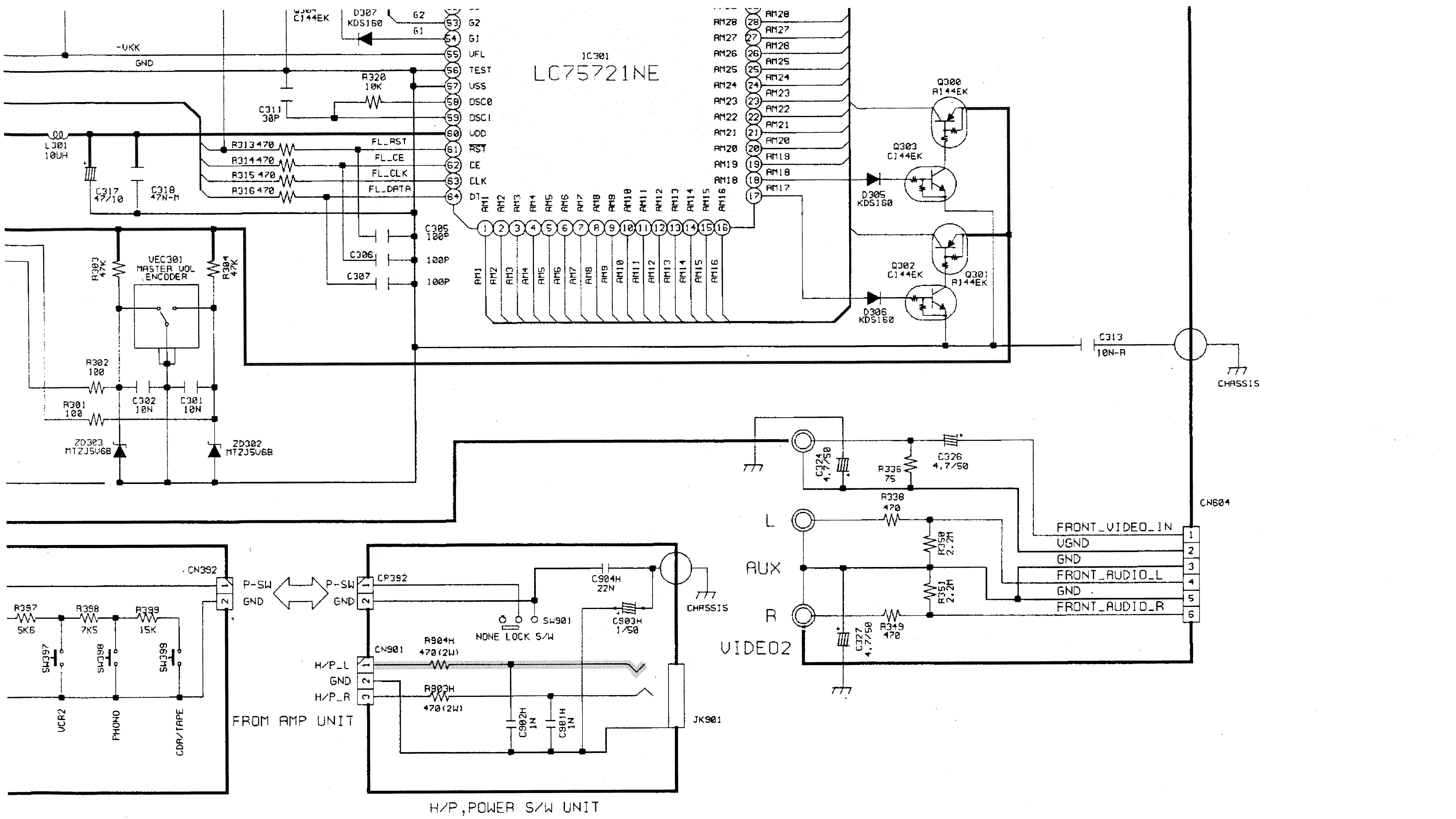

KEY1
KEY2
KEY3
SEL_DW
SEL_UP
VOL_UP
VOL_DW
2090_DATA
FL/2090_CLK
FL_DATA
FL_CF
FL_RST
REMOCON
GND
GND
+5.6V
UKK
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
CN301
TO CPU UNIT
L302
100UH
ZD301
UZ6V8
10/50
C316
FRONT B'D
R318
470
R317
470
RMC301
RMC
OUT G +5
D304
1SS131T
R335
10
C312
47N
C322
47/10
C325
100P
2090_DATA
2090_CLK
DTS_SIG
DTS_IN
D_DIGITAL
PCM
1 2 3 4 5 6 7 8
GND DATA CLK Q1 Q2 Q3 Q4 Q5
VCC Q12 Q11 Q10 Q9 Q8 Q7 Q6
16 15 14 13 12 11 10 9
IC302
BU2090F
R341
680
R343
680
R342
680
R340
680
LED306
LED302
LED307
LED301
PCM
D_DIGITAL
DTS_IN
DTS_SIG
C309
22N
C315
10/35
D303
1SS131T
D302
1SS131T
C328
47N
C320
1/50
C321
47N-M
62
61
1
2
AM1
R349FL
56K
LOCK
AUTO
STBY
SPK_B
SPK_A
R344
680
R346
680
680
R345
680
R347
680
R348
D303
D305
D304
D309
D308


6
7
8
9
10
11
A
B
C
D
FIL1
FIL2
FROM TRANS UNIT
C323
100N-M
TUNED
RDS
STEREO
AUTO
REC
MULTI
PHONO
VCR
CD
-1
TUNER
-2
-3
AUX
V_AUX
DVD
MD
VDP
TAPE
-1
TV
DBS
-2
CH
PRO LOGIC
DIGITAL
DIGITAL
ANALOG
C321
47N-M
R349FL … R375FL
R376FL … R402FL
56K
GND
C314
47N-M
C315
1/50
Q305
A144EK
Q304
C144EK
R337
4K7
D307
KDS160
-VKK
GND
IC301
G1 G2 G3 G4 G5 G6 G7 G8 G9 G10 G11 G12 G13 G14 G15 G16
AA1 AA2 AA3
AM1 … AM35
UFL


( ) : E2
JAPAN ONLY
R314 680
LED303
R346 680
LED305
680 R345
LED304
680 R347
LED309
680 R34
LED308
SEL_UP
SEL_DW
+5V_ENCO
SW303
STATUS (RT)
SW301
R309 1K
CH.VOL
SW322
R310 1K2
TONE_CONTROL
SW302
R311 3K3
SURR_MODE
SW321
R312 2K2
SURR_PARA
SW320
R319 2K7
TONE_DFT (STATUS)
SW319
R322 4K3
CINEMA_EQ
SW318
R324 5K6
EXT.IN
SW317
R326 7K5
ANALOG
SW315
R331 15K
SPEAKER_B
SW306
R321 1K
TUNING_UP
SW307
R323 1K2
TUNING_DN
SW308
R325 1K5
MEMORY
SW309
R327 1K8
MODE
SW310
R328 2K2
BAND
SW311
R329 2K7
PRESET_UP
SW312
R333 4K3
PRESET_DN
SW313
R334 5K6
SHIFT
SW314
R332 7K5
SPEAKER_A
SW316
R330 15K
INPUT_MODE
DIMMER (PTY) SW304
SW305
R339 1K
VIDEO_SELECT (RDS)
R308 47K
VEC302 SELECT ENCODER
R307 47K
R306 100
R305 100
C304 10N
C303 10N
ZD304 MTZJ5V6B
ZD305 MTZJ5V6B
P-SW
GND
KEY
CP391
CN391
R391 1K2
R392 1K5
R393 1K8
R394 2K2
R395 2K7
R396 4K3
R397 5K6
SW391
SW392
SW393
SW394
SW395
SW396
SW397
DVD/VDP
CD
TUNER
TV/DBS
VCR1
V.AUX
FRONT S/W UNIT

NOTICE

ALL RESISTANCE VAL
ALL CAPACITANCE VA
EACH VOLTAGE AND C
CONDITION.
CIRCUIT AND PARTS /
NOTICE.


IC301
LC75721NE
D307 KDS160
-VKK
GND
R320 10K
C311 30P
L301 10UH
C317 47/10
C318 47N-M
R313 470
R314 470
R315 470
R316 470
FL_RST
FL_CE
FL_CLK
FL_DATA
G2
G1
VFL
TEST
VSS
OSC0
OSC1
VDD
RST
CE
CLK
DI
C305 100P
C306 100P
C307 100P
R303 47K
R304 47K
VEC301 MASTER VOL ENCODER
R302 100
R301 100
C302 10N
C301 10N
ZD303 MTZJ5V6B
ZD302 MTZJ5V6B
Q300 A144EK
Q303 C144EK
D305 KDS160
Q302 C144EK
Q301 A144EK
D306 KDS160
C313 10N-R
CHASSIS
C324 4.7/50
R336 75
C326 4.7/50
R338 470
R350 2.2M
R351 2.2M
R349 470
C327 4.7/50
L
AUX
R
VIDEO2
CN604
FRONT_VIDEO_IN
VGND
GND
FRONT_AUDIO_L
GND
FRONT_AUDIO_R
CN392
P-SW
GND
R397 5K6
R398 7K5
R399 15K
SW397
SW398
SW399
VCR2
PHONO
CDR/TAPE
FROM AMP UNIT
CP392
C904H 22N
SW901
NONE LOCK S/W
C903H 1/50
CN901
H/P_L
GND
H/P_R
R904H 470(2W)
R903H 470(2W)
C902H 1N
C901H 1N
JK901
H/P,POWER S/W UNIT
E
F
G
H

+B LINE

▨ SIGNAL LINE

WARNING:

Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

WARNING:

DO NOT return the unit to the customer until the problem is located and corrected.

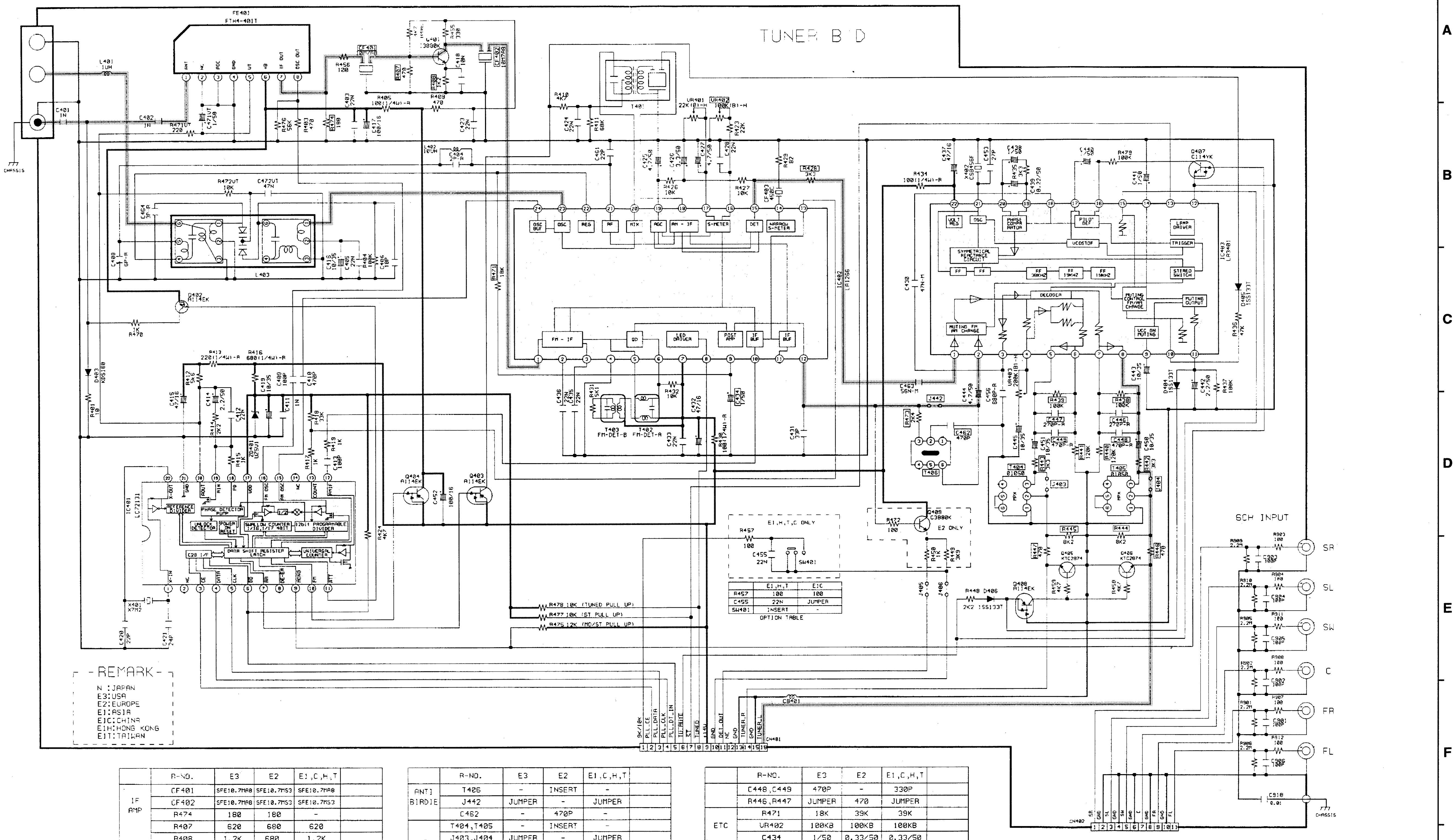
CE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
NCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
E AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT

PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR

SCHEMATIC DIAGRAMS (7/8)

FRONT UNIT
TACT S/W UNIT
HEAD PHONE UNIT

SCHEMATIC DIAGRAMS (8/8)


TUNER B'D
FE401
FTM4-401I
IC401
LC72131
IC402
LA1266
IC403
LA1481
5CH INPUT
SR
SL
SW
C
FR
FL
CHASSIS
CN401
CN402
9K/10K
PLL_CE
PLL_DATA
PLL_CLK
PLL_DT_IN
TU_MUTE
ST
TUNED
+14V
GND
DET_OUT
NC
GND
TUNER_R
GND
TUNER_L
R478 10K (TUNED PULL UP)
R477 10K (ST PULL UP)
R475 12K (MO/ST PULL UP)
E1,H,T,C ONLY
E2 ONLY
1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H

-REMARK-

N :JAPAN
E3:USA
E2:EUROPE
E1:ASIA
E1C:CHINA
E1H:HONG KONG
E1T:TAIWAN

	E1,H,T	E1C
R457	100	100
C455	22N	JUMPER
SW401	INSERT	-

OPTION TABLE

	R-NO.	E3	E2	E1,C,H,T	
IF AMP	CF401	SFE10.7MA8	SFE10.7MS3	SFE10.7MA8	
	CF402	SFE10.7MA8	SFE10.7MS3	SFE10.7MS3	
	R474	180	180	-	
	R407	620	680	620	
	R408	1.2K	680	1.2K	
OUTPUT LEVEL	R428	3.3K	10K	6.8K	
	R473	JUMPER	2.4K	JUMPER	
	R444,R445	8.2K	3.3K	8.2K	
	R442,R443	3.3K	2.2K	3.3K	

	R-NO.	E3	E2	E1,C,H,T	
ANTI BIRDIE	T406	-	INSERT	-	
	J442	JUMPER	-	JUMPER	
	C462	-	470P	-	
DE EMPHASIS	T404,T405	-	INSERT	-	
	J403,J404	JUMPER	-	JUMPER	
	R440,R441	120K	220K	120K	
	R438,R439	100K	150K	100K	
	C446,C447	270P	330P	180P	
RDS	J405,406	-	INSERT	-	

	R-NO.	E3	E2	E1,C,H,T	
	C448,C449	470P	-	330P	
	R446,R447	JUMPER	470	JUMPER	
ETC	R471	18K	39K	39K	
	VR402	100KB	100KB	100KB	
	C434	1/50	0.33/50	0.33/50	
RDS	R449	-	3.9K	-	
	R450	-	1K	-	
	R472	-	100	-	
	Q409	-	C3880K	-	

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

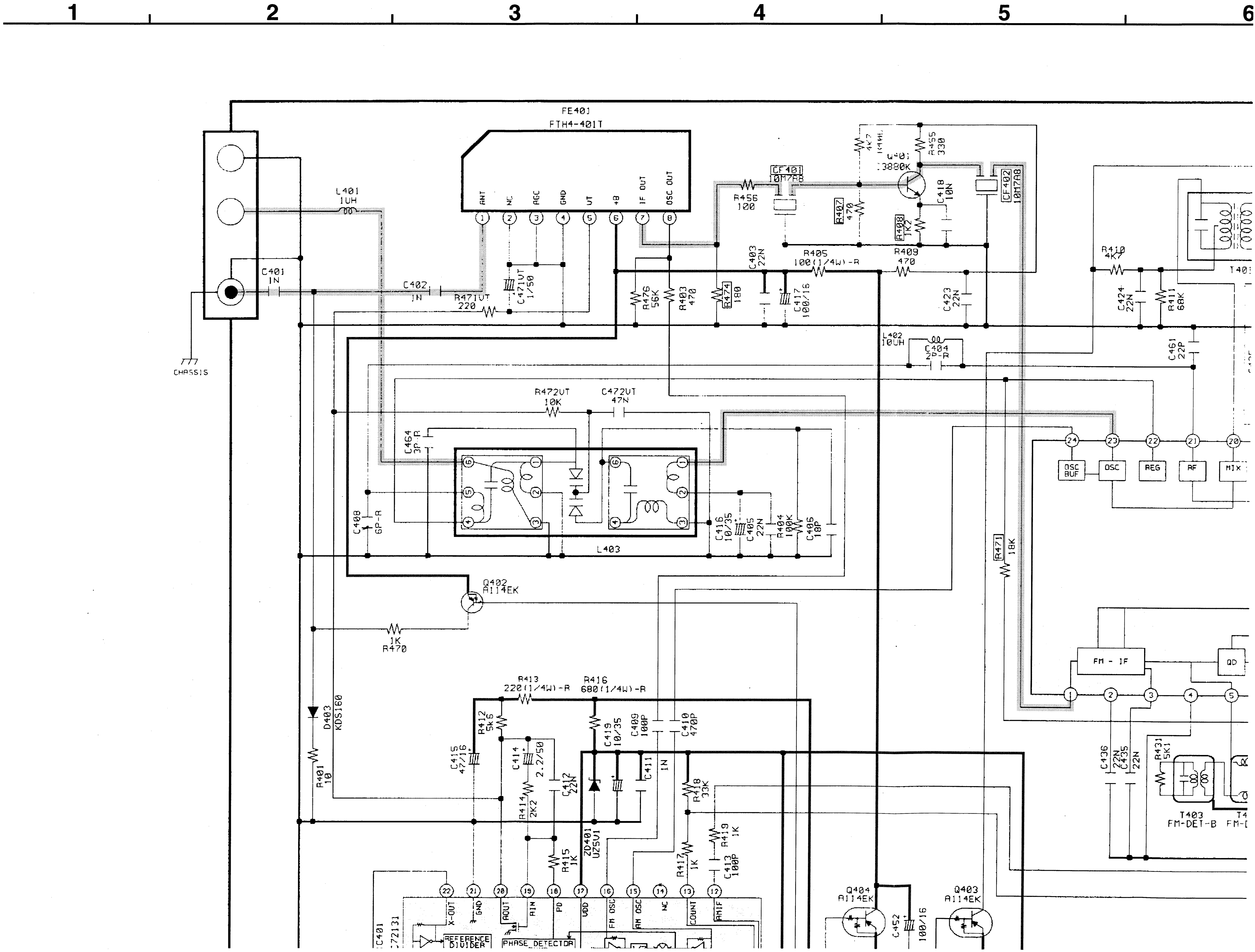
WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

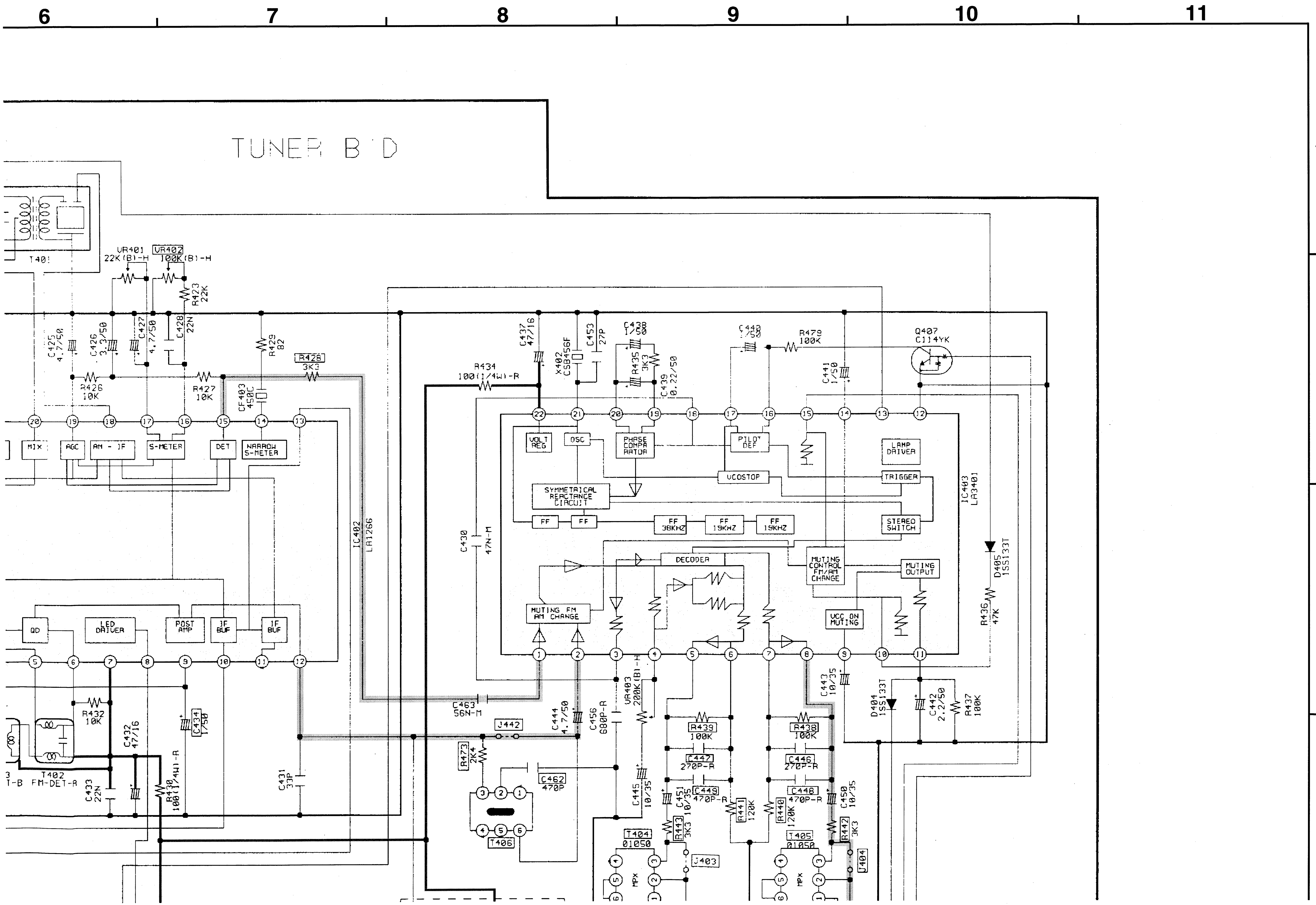
NOTICE
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

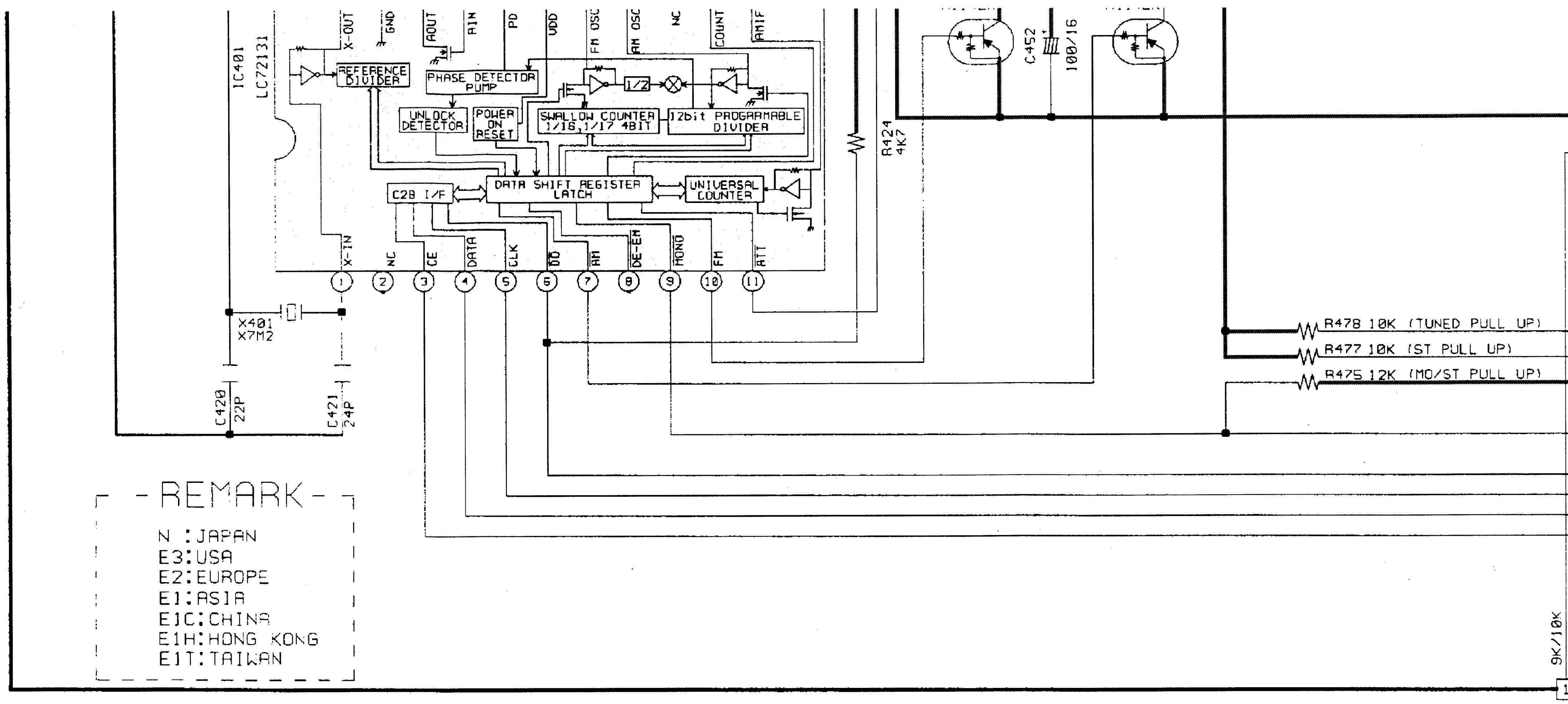
——— + B LINE
▨ SIGNAL LINE

SCHEMATIC DIAGRAMS (8/8)
TUNER UNIT

SCHEMATIC DIAGRAMS (8/8)


1
2
3
4
5
6
FE401
FTH4-401T
ANT
NC
AGC
GND
VT
+B
IF OUT
OSC OUT
CHASSIS
L401
1UH
C401
1N
C402
1N
R471UT
220
C471UT
1/50
R476
56K
R403
470
R474
180
C403
22N
C417
100/16
R456
100
CF401
10M7A8
R405
100(1/4W)-R
R407
470
R408
1K2
R409
470
Q401
2SC3880K
R455
330
C418
10N
CF402
10M7A8
C423
22N
R410
4K7
C424
22N
R411
68K
T401
L402
10UH
C404
2P-R
C461
22P
R472UT
10K
C472UT
47N
C464
3P-R
C408
6P-R
L403
C416
10/35
C405
22N
R404
100K
C406
18P
R471
18K
OSC BUF
OSC
REG
RF
MIX
Q402
A114EK
R470
1K
D403
KDS160
R401
10
R413
220(1/4W)-R
R416
680(1/4W)-R
R412
5K6
C415
47/16
C414
2.2/50
R414
2K2
C412
22N
C419
10/35
C409
100P
C410
470P
C411
1N
ZD401
UZ5V1
R418
33K
R417
1K
R419
1K
C413
100P
R415
1K
X-OUT
GND
AOUT
AIN
PD
VDD
FM OSC
AM OSC
NC
COUNT
AMIF
REFERENCE DIVIDER
PHASE DETECTOR
IC401
LC72131
Q404
A114EK
C452
100/16
Q403
A114EK
FM - IF
QD
C436
22N
C435
22N
R431
5K1
T403
FM-DET-B
T4
FM-D


6
7
8
9
10
11
A
B
C
D
TUNER B'D
T401
VR401 22K(B)-H
VR402 100K(B)-H
R423 22K
C425 4.7/50
C426 3.3/50
C427 4.7/50
C428 22N
R429 82
R428 3K3
R426 10K
R427 10K
CF403 450C
MIX
AGC
AM - IF
S-METER
DET
NARROW S-METER
IC402 LA1266
QD
LED DRIVER
POST AMP
IF BUF
IF BUF
R432 10K
C434 1/50
C432 47/16
T402 FM-DET-A
C433 22N
R430 100(1/4W)-R
C431 33P
J442
C463 56N-M
C430 47N-M
R434 100(1/4W)-R
C437 47/16
X402 CSB456F
C453 27P
C438 1/50
R435 3K3
C439 0.22/50
C440 1/50
R479 100K
C441 1/50
Q407 C114YK
VOLT REG
OSC
PHASE COMPA RATOR
PILOT DET
LAMP DRIVER
VCOSTOP
TRIGGER
SYMMETRICAL REACTANCE CIRCUIT
FF
FF
FF 38KHZ
FF 19KHZ
FF 19KHZ
STEREO SWITCH
IC403 LA3401
DECODER
MUTING CONTROL FM/AM CHANGE
MUTING OUTPUT
MUTING FM AM CHANGE
VCC ON MUTING
D405 1SS133T
R436 47K
C444 4.7/50
C456 680P-R
VR403 200K(B)-H
C443 10/35
D404 1SS133T
C442 2.2/50
R437 100K
R473 2K4
C462 470P
T406
R439 100K
C447 270P-R
C449 470P-R
R438 100K
C446 270P-R
C448 470P-R
C445 10/35
C451 10/35
R441 120K
R440 120K
C450 10/35
R443 3K3
R442 3K3
T404 01050
T405 01050
J403
J404
MPX
MPX


IC401
LC72131
X-OUT
GND
AOUT
AIN
PD
VDD
FM OSC
AM OSC
NC
COUNT
AMIF
REFERENCE DIVIDER
PHASE DETECTOR PUMP
1/2
UNLOCK DETECTOR
POWER ON RESET
SWALLOW COUNTER 1/16,1/17 4BIT
12bit PROGRAMABLE DIVIDER
C2B I/F
DATA SHIFT REGISTER LATCH
UNIVERSAL COUNTER
X-IN
NC
CE
DATA
CLK
DO
AM
DE-EM
MONO
FM
ATT
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
X401
X7M2
C420
22P
C421
24P
R424
4K7
C452
100/16
R478 10K (TUNED PULL UP)
R477 10K (ST PULL UP)
R475 12K (MO/ST PULL UP)
9K/10K

-REMARK-

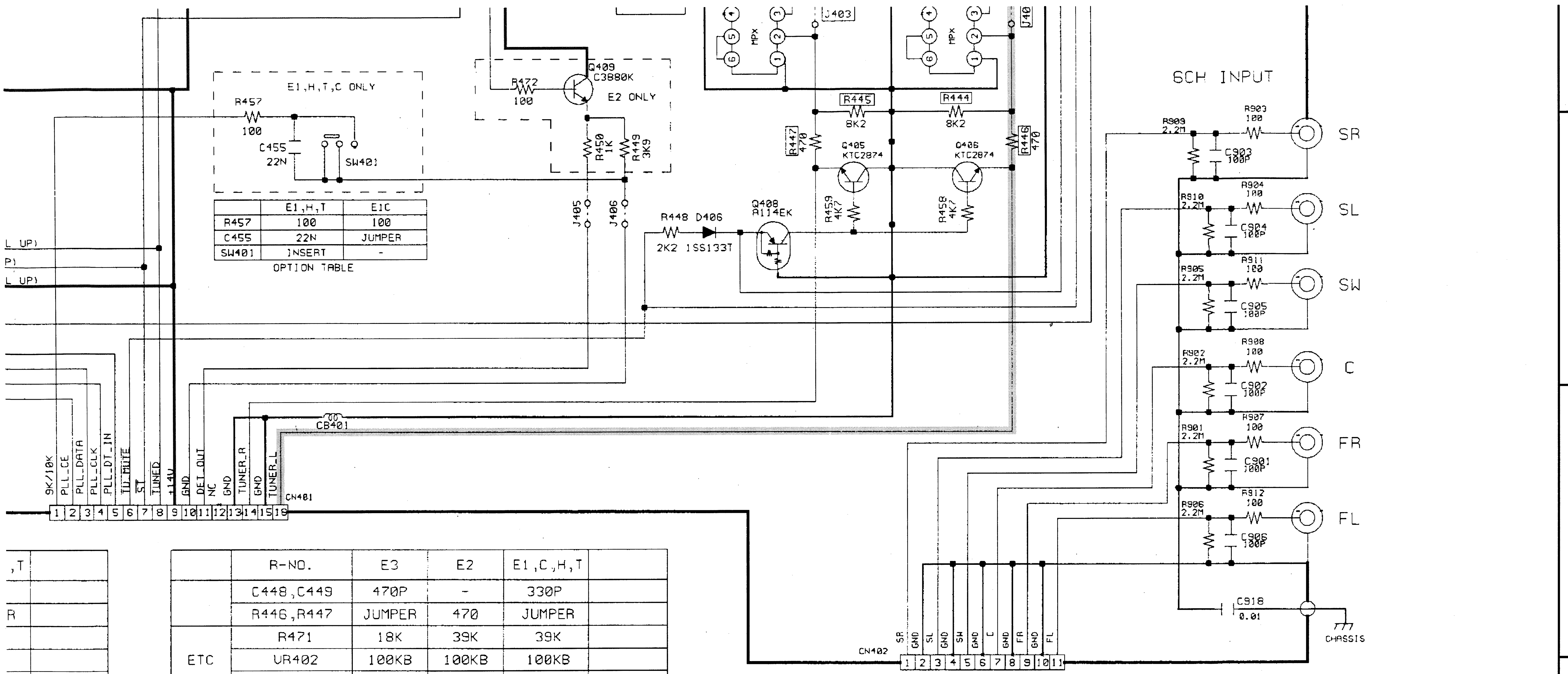
N :JAPAN
E3:USA
E2:EUROPE
E1:ASIA
E1C:CHINA
E1H:HONG KONG
E1T:TAIWAN

	R-NO.	E3	E2	E1,C,H,T	
IF AMP	CF401	SFE10.7MA8	SFE10.7MS3	SFE10.7MA8	
	CF402	SFE10.7MA8	SFE10.7MS3	SFE10.7MS3	
	R474	180	180	-	
	R407	620	680	620	
	R408	1.2K	680	1.2K	
OUTPUT LEVEL	R428	3.3K	10K	6.8K	
	R473	JUMPER	2.4K	JUMPER	
	R444,R445	8.2K	3.3K	8.2K	
	R442,R443	3.3K	2.2K	3.3K	

	R-NO.	E3	E2	E1,C,H,T	
ANTI BIRDIE	T406	-	INSERT	-	
	J442	JUMPER	-	JUMPER	
	C462	-	470P	-	
DE EMPHASIS	T404,T405	-	INSERT	-	
	J403,J404	JUMPER	-	JUMPER	
	R440,R441	120K	220K	120K	
	R438,R439	100K	150K	100K	
	C446,C447	270P	330P	180P	
RDS	J405,406	-	INSERT	-	

NOTICE

ALL RESISTANCE VAL
ALL CAPACITANCE VA
EACH VOLTAGE AND C
CONDITION.
CIRCUIT AND PARTS A
NOTICE.


E1,H,T,C ONLY
R457
100
C455
22N
SW401
Q409
C3880K
R472
100
E2 ONLY
R450
1K
R449
3K9
J405
J406
J403
MPX
R445
8K2
R444
8K2
R447
470
R446
470
Q405
KTC2874
Q406
KTC2874
R459
4K7
R458
4K7
Q408
A114EK
R448
2K2
D406
1SS133T
CB401
L_UP)
P)
L_UP)
9K/10K
PLL_CE
PLL_DATA
PLL_CLK
PLL_DT_IN
TU_MUTE
ST
TUNED
+14V
GND
DET_OUT
NC
GND
TUNER_R
GND
TUNER_L
CN401
6CH INPUT
R909
2.2M
R903
100
C903
100P
SR
R910
2.2M
R904
100
C904
100P
SL
R905
2.2M
R911
100
C905
100P
SW
R902
2.2M
R908
100
C902
100P
C
R901
2.2M
R907
100
C901
100P
FR
R906
2.2M
R912
100
C906
100P
FL
C918
0.01
CHASSIS
CN402
SR
GND
SL
GND
SW
GND
C
GND
FR
GND
FL
E
F

	E1,H,T	E1C
R457	100	100
C455	22N	JUMPER
SW401	INSERT	-

OPTION TABLE

,T	
R	
R	

	R-NO.	E3	E2	E1,C,H,T
	C448,C449	470P	-	330P
	R446,R447	JUMPER	470	JUMPER
ETC	R471	18K	39K	39K
	VR402	100KB	100KB	100KB
	C434	1/50	0.33/50	0.33/50
RDS	R449	-	3.9K	-
	R450	-	1K	-
	R472	-	100	-
	Q409	-	C3880K	-

G

H

CE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
NCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
E AND CURRENT ARE MEASUERD AT MO SIGNAL INPUT

ARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR

WARNING:

Parts marked with this symbol ⚠ ▭ have critical characteristics.
Use ONLY replacement parts recommended by the manufacture.

CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

WARNING:

DO NOT return the unit to the customer until the problem is located and corrected.

——— + B LINE
▨ SIGNAL LINE

SCHEMATIC DIAGRAMS (8/8)
TUNER UNIT